

Outdoor Recreation Trends:

A National Assessment of Trends and Futures for Outdoor Recreation, Natural Amenity Migration and Footprints

A series of 4 national reports to be published in 2010

Ken Cordell, Forest Service Research, Athens, GA

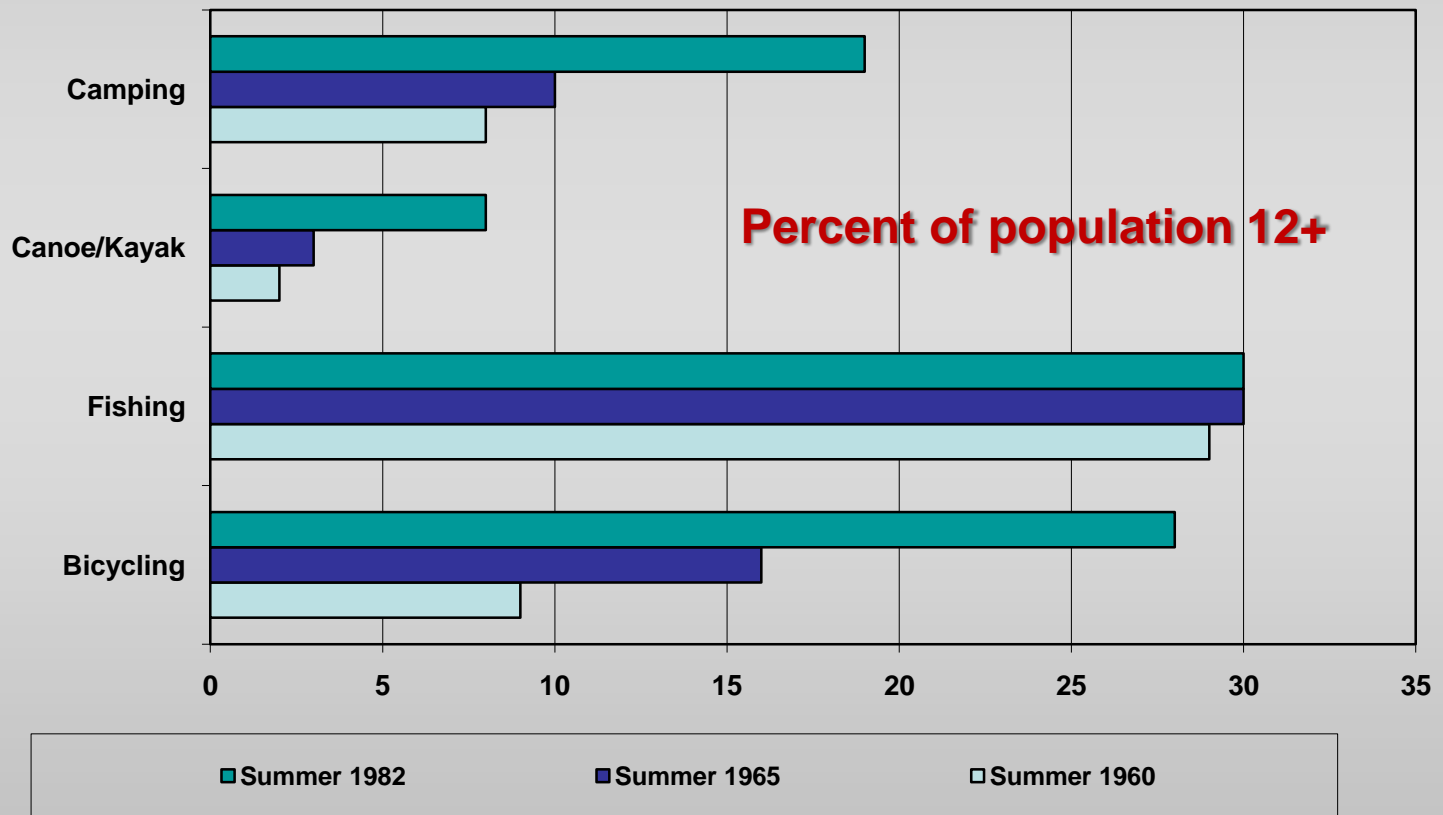


Recreation Activity Trends and Futures

- **Population-wide participation at national and regional scales—historic and current (four sources):**
 - **Survey on Fishing, Hunting and Wildlife Associated Recreation (USFWS)**
 - **Outdoor Foundation—Recreation Participation Survey**
 - **National Survey on Recreation and the Environment**
 - **National Kids Survey (Forest Service, UGA, UT)**
- **Participation Differences by Age, Race, Gender, Origin,**
- **Participation Differences by Region**
- **Participation Differences between Forest and Rangelands**
- **Public Land Visitation Trends**
 - **Federal Lands (land and water management agencies)**
 - **State Parks (state park systems)**
- **Projections of Demand to 2060 by IPCC Scenario**

Historic Trends, 1960 to 1980s

Shows in brief some of the historic outdoor recreation activity participation trends (percent of population) based on the former National Recreation Survey, 1960 - 1983.



The NSRE is a continuation of the NRS

Primary Sources for Current Outdoor Recreation Trends

- **National Survey on Fishing, Hunting and Wildlife Associated Recreation (FWS)**
- **Outdoor Foundation's National Outdoor Participation Survey (Topline Report)**
- **National Survey on Recreation and the Environment (NSRE)**
- **National Kids Survey (NKS)**

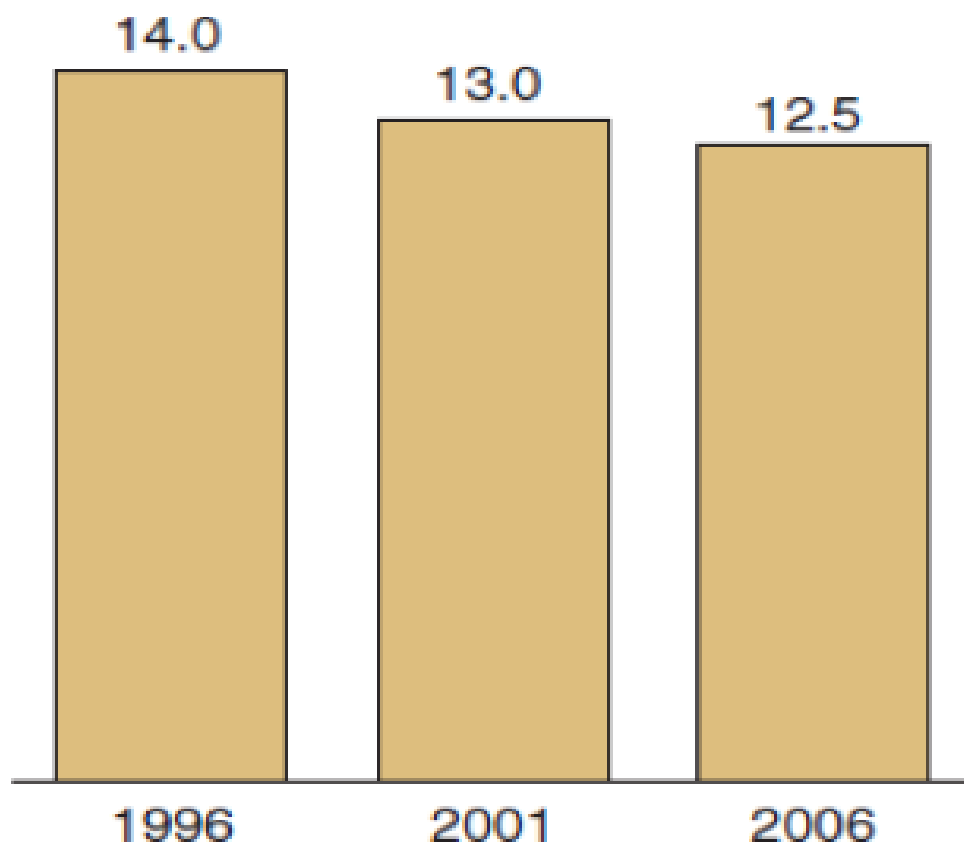
Several opinions out there about current recreation trends, thus, other sources also will be summarized and integrated--Including...

- **Mediamark Research Inc. on Leisure Activities as reported in Census Statistical Abstract**
- **Sporting Goods Manufacturing Assn. (sports participation)**
- **National Household Travel Survey (U. S. DOT)**
- **American Time Use Survey (Bureau of Labor Statistics)**
- **A variety of recreation related consumer expenditure and recreation activities participation statistics in the 2009 Statistical Abstract**

Fishing, Hunting and Wildlife Associated Recreation Survey

Figure 3. Hunting Participation: 1996-2006

(Population 16 years of age and older. Number in millions)

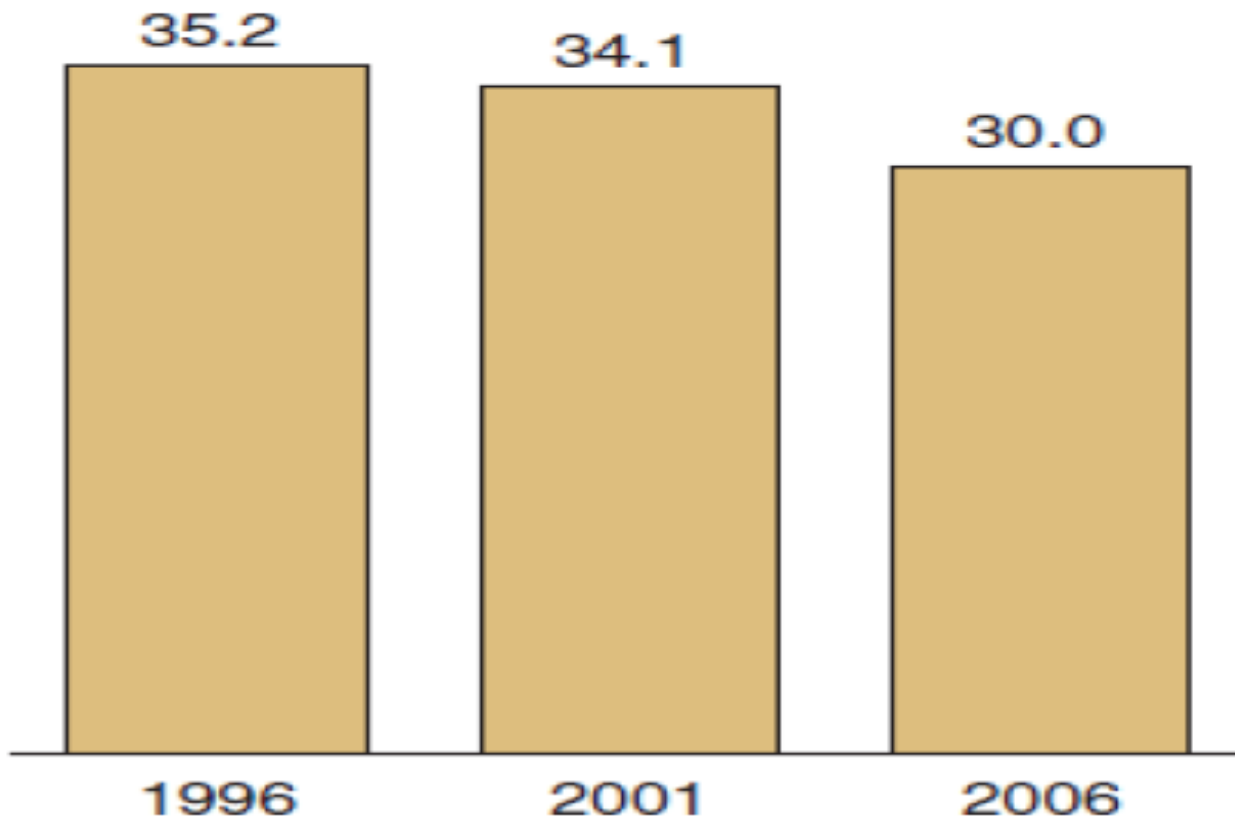


Current Trends in U. S.



Fishing, Hunting and Wildlife Associated Recreation Survey

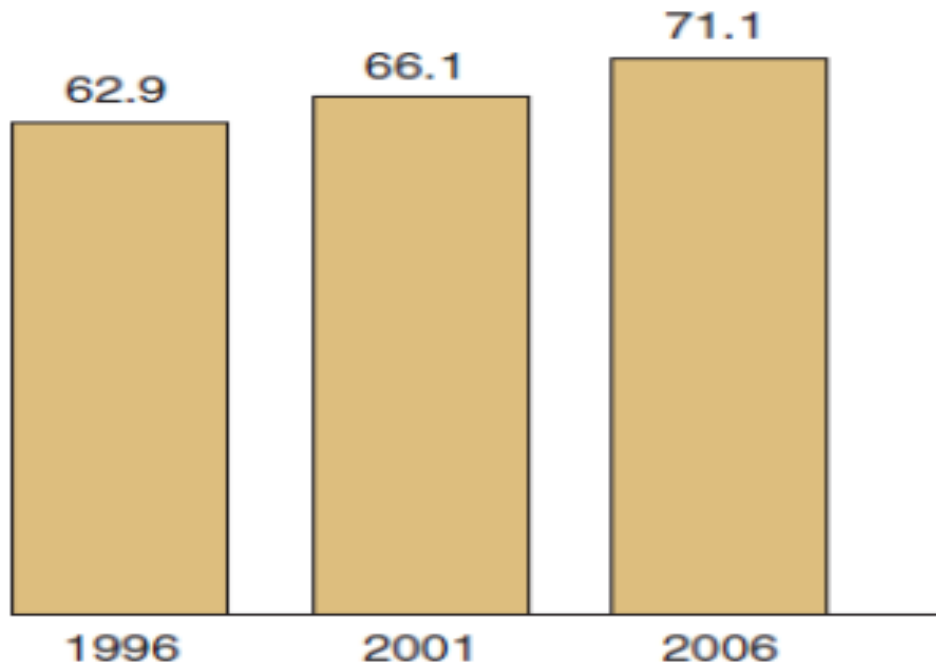
Figure 6. Fishing Participation: 1996-2006
(Population 16 years of age and older. Number in millions)



Fishing, Hunting and Wildlife Associated Recreation Survey

Figure 10. Wildlife Watching: 1996-2006

(Population 16 years of age and older. Number in millions)



Tuesday, October 27, 2009

The Outdoor Foundation 2009 Participation Topline

Washington, DC — Initial data from the 2009 Outdoor Recreation Participation Topline Report, published by The Outdoor Foundation, **shows that an increasing number of Americans returned to nature and active outdoor activities last year. The study finds sizeable participation increases in nearly every nature-based activity ...including double-digit increases in backpacking, mountain biking and trail running and close to a ten percent increase in hiking and camping.** Overall participation trends in recreation, sports and fitness remained largely unchanged from last year.

“Americans, once again, are finding solace and security, adventure and excitement in the great outdoors,” said Christine Fanning, executive director of The Outdoor Foundation. “During these challenging economic times, a return to affordable, nature-based recreation allows individuals, friends and families to reconnect — with one another, with the natural world and with natural values.”

The Outdoor Foundation 2009 Outdoor Recreation Participation Topline Report also shows **increases in many active outdoor activities among youth..... but** overall, outdoor participation for youth ages 6 – 12 is down 7.6% from last year..... showing a continued need to focus on connecting kids and nature.

“It is certainly encouraging to see an increase of youth participation in some important recreation categories, but more must be done,” continued Fann private partnerships, effective outreach programs and creative campaigns



Tracking American Participation in Outdoor Recreation: The Outdoor Foundation's Annual *Outdoor Recreation Participation Report*

Excerpt from paper submitted for inclusion in our pub.

According to the most recent data collected, 48.6 percent of all Americans participated in outdoor recreation in 2008. From day hiking in an urban park, to backpacking in a designated wilderness area, to snowboarding at a mountain resort, 135.9 million Americans enjoyed the benefits of a healthy, active outdoor lifestyle...



CHART 1: Participation in Outdoor Recreation by Age

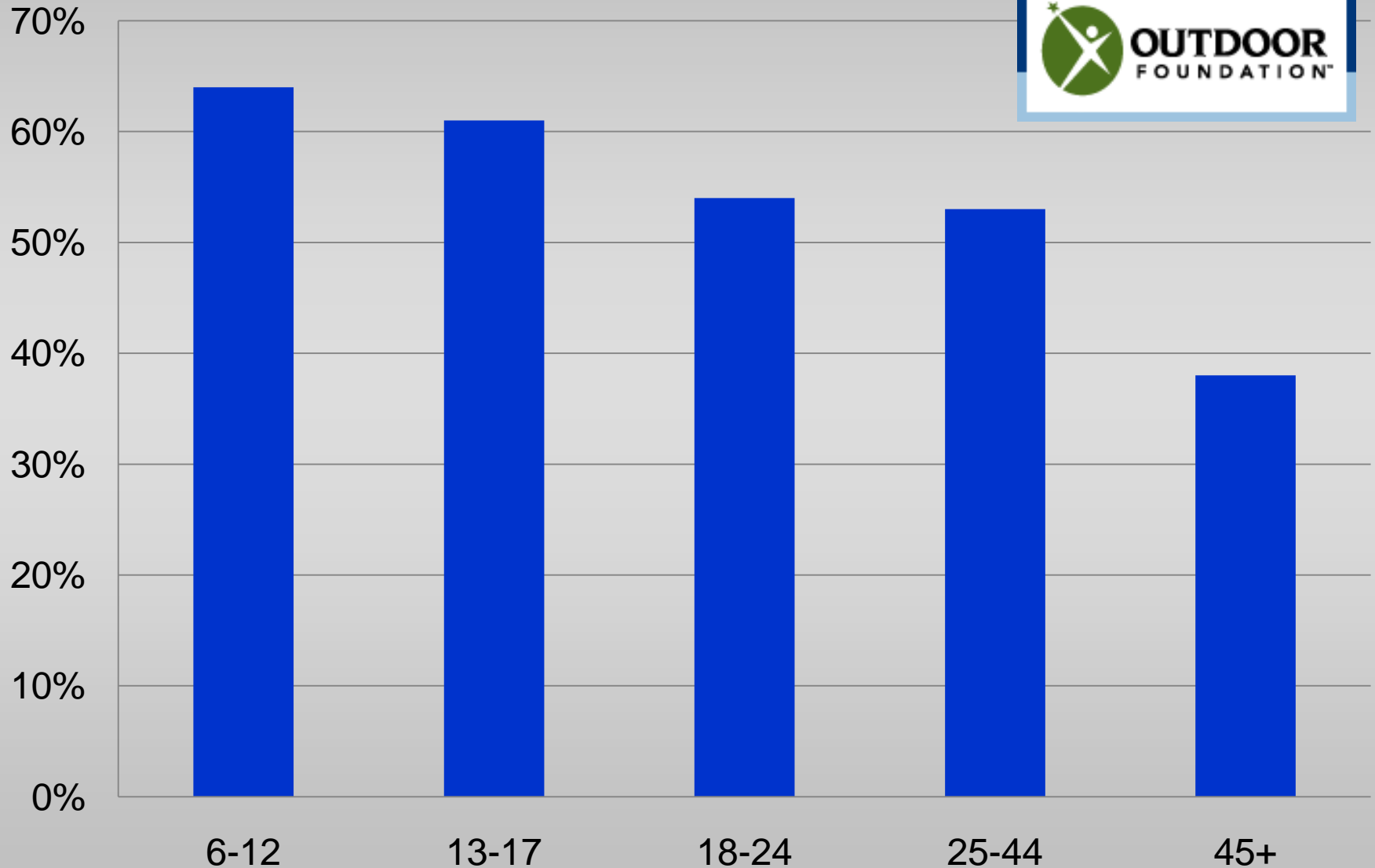
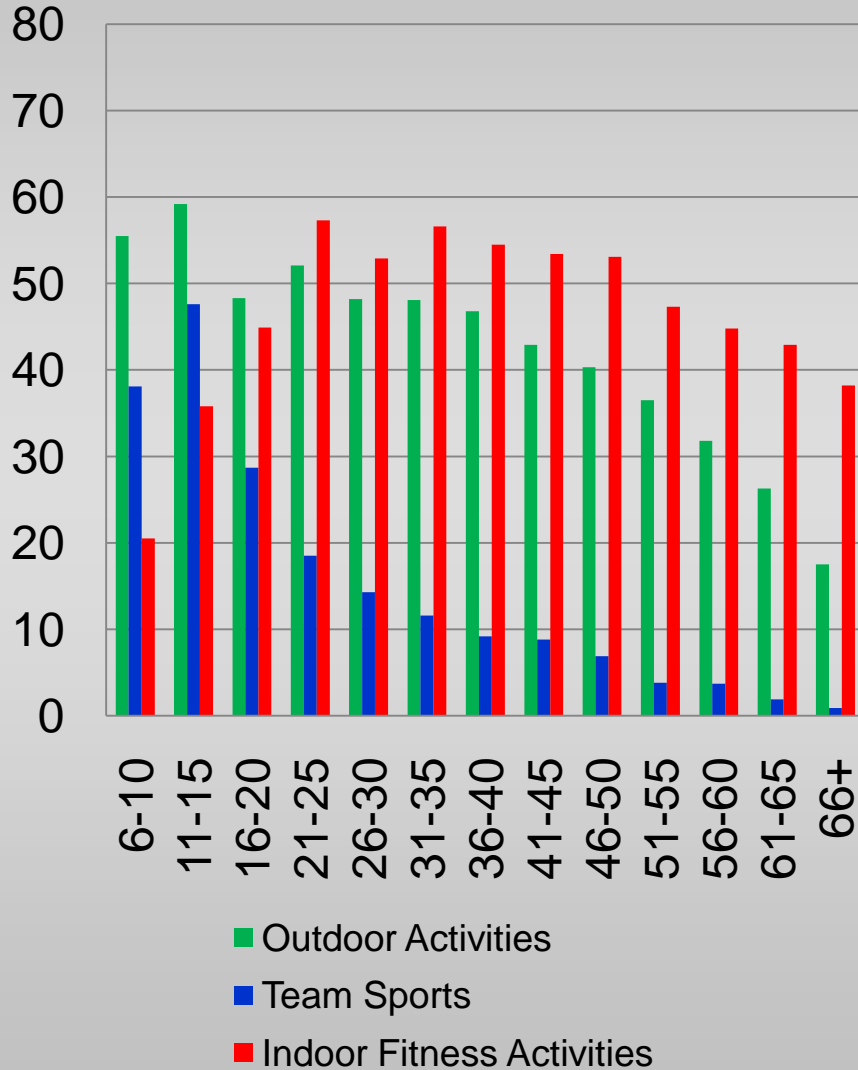




CHART 2: Lifecycle of Participation by Age and Gender

Females



Males

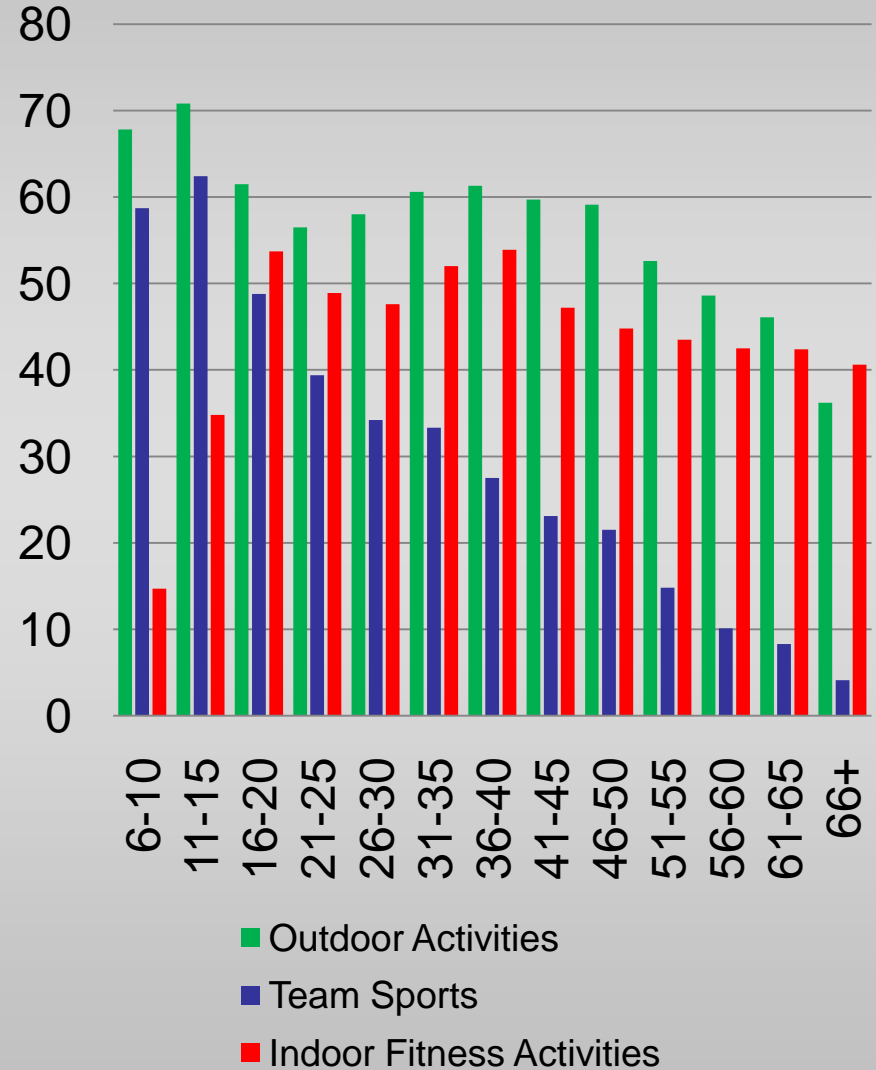
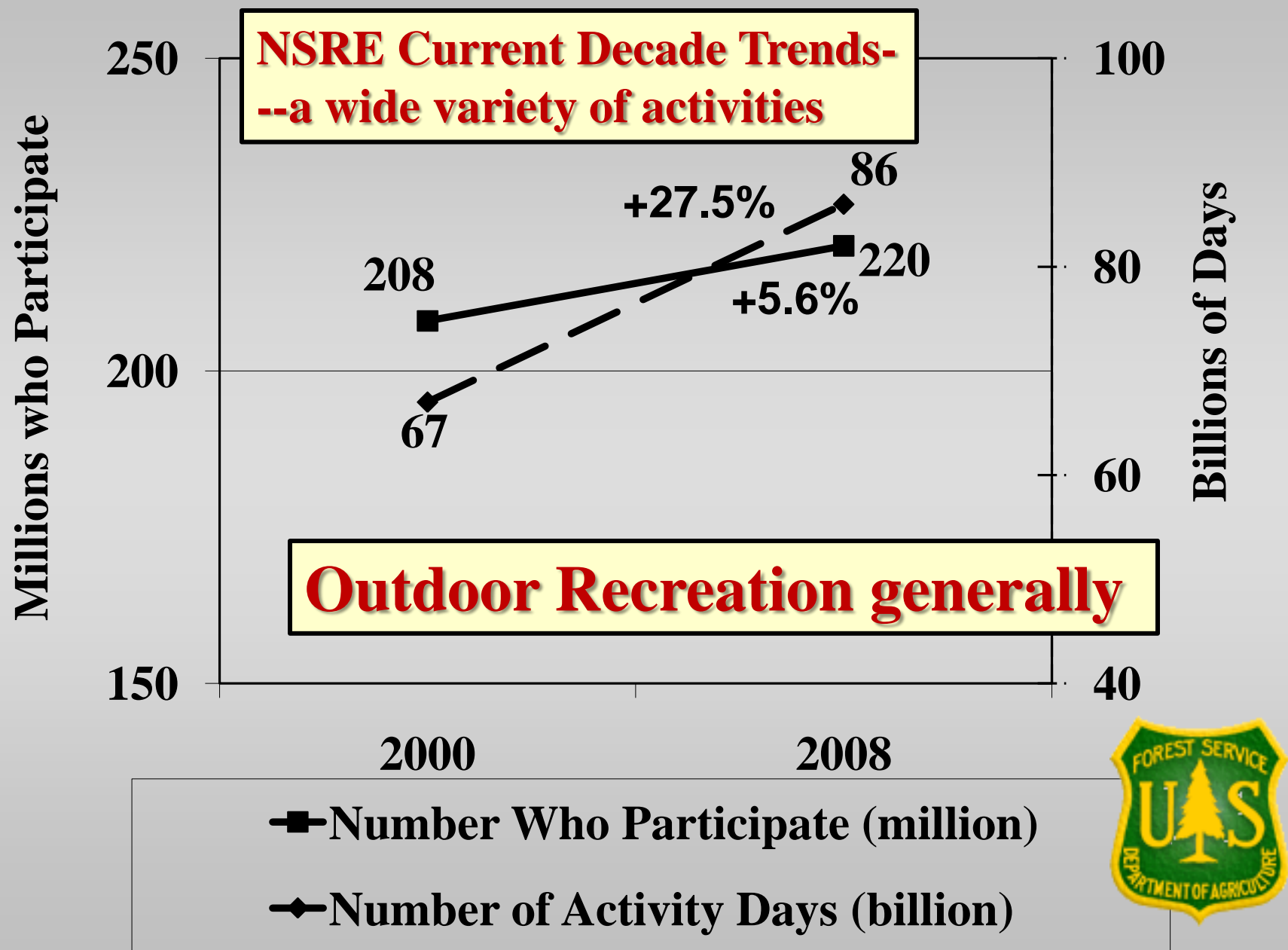


Figure 1.—Growth in number of people and number of participation days in 60 outdoor activities in the United States, 2000–2008



A few top activities showing trends in number and percentage of people 16 and older participating, 1999-2001 and 2005-2009

NSRE Current Decade Trends--a wide variety of activities

Activity	1994-95 Total participants (millions)	1999-01 Total participants (millions)	2005-09 Percent of Population	2005-09 Total participants (millions)	Percent change 1999-01 to 2005-09
Walk for pleasure	138.4	176.4	84.3	194.7	10.4
Family gatherings outdoors	128.2	158.2	74.4	171.9	8.7
Gardening or landscaping	.	139.3	66.8	154.3	10.7
View/photograph natural scenery	.	127.5	63.5	146.6	14.9
Visit nature centers, etc	110.9	121.3	55.4	128.0	5.5

Trends in number and percentage of people 16 and older participating in outdoor activities

Activity	1994-95	1999-01	2005-09 Percent of Population	2005-09	NSRE 1999-01 to 2005-09
	Total participants (1,000s)	Total participants (1,000s)		Total participants (1,000s)	
Sledding	27,653.0	32,289.5	10.7	24,806.5	-23.2
Saltwater fishing	22,938.5	22,339.9	10.7	24,756.8	10.8
Baseball	16,018.3	13,776.4	10.3	23,788.2	72.7
Soccer outdoors	11,245.1	15,974.1	10.3	23,749.4	48.7
Backpacking	16,982.9	22,209.3	10.0	23,061.6	3.8
Tennis outdoors	28,215.2	22,453.5	9.7	22,422.5	-0.1
Horseback riding	20,701.5	20,664.2	9.7	22,343.0	8.1
Canoeing	17,851.1	20,578.1	9.4	21,662.2	5.3
Use personal watercraft	12,021.9	20,320.3	8.9	20,486.7	0.8
Waterskiing	22,657.1	17,105.6	8.6	19,853.5	16.1
Softball	30,999.0	21,300.9	8.5	19,700.2	-7.5
Rafting	19,283.6	20,628.1	8.2	18,936.8	-8.2
Horseback riding on trails	15,132.9	16,628.1	7.0	16,214.7	-2.5
Big game hunting	19,002.6	17,919.6	6.9	15,998.4	-10.7
Small game hunting	17,340.3	15,048.2	6.9	15,967.8	6.1

<div> <div>Days</div> <div>on which participation occurred across all participants</div> </div>		1999-2001	2005-2009	Percent change	Change in
Activity		Total days	Total days	1999-09	total days 1999-09
Visit historic sites		697.1	693.3	-0.5	-3.8
Migratory bird hunting		62.3	57.1	-8.3	-5.2
Coldwater fishing		394.1	382.7	-2.9	-11.4
Big game hunting		264.2	248.4	-6.0	-15.8
Canoeing		143.4	121.1	-15.6	-22.3
Cross-country skiing		63.8	33.1	-48.1	-30.7
Saltwater fishing		282.9	251.1	-11.2	-31.8
Snowmobiling		124.7	79.3	-36.4	-45.4
Downhill skiing		147.3	93.7	-36.4	-53.6
Horseback riding on trails		429.5	313.3	-27.1	-116.2
Picnicking		942.1	799.9	-15.1	-142.2
Mountain biking		1,353.9	900.7	-33.5	-453.2
Day hiking		2,520.0	2,059.2	-18.3	-460.8

NSRE

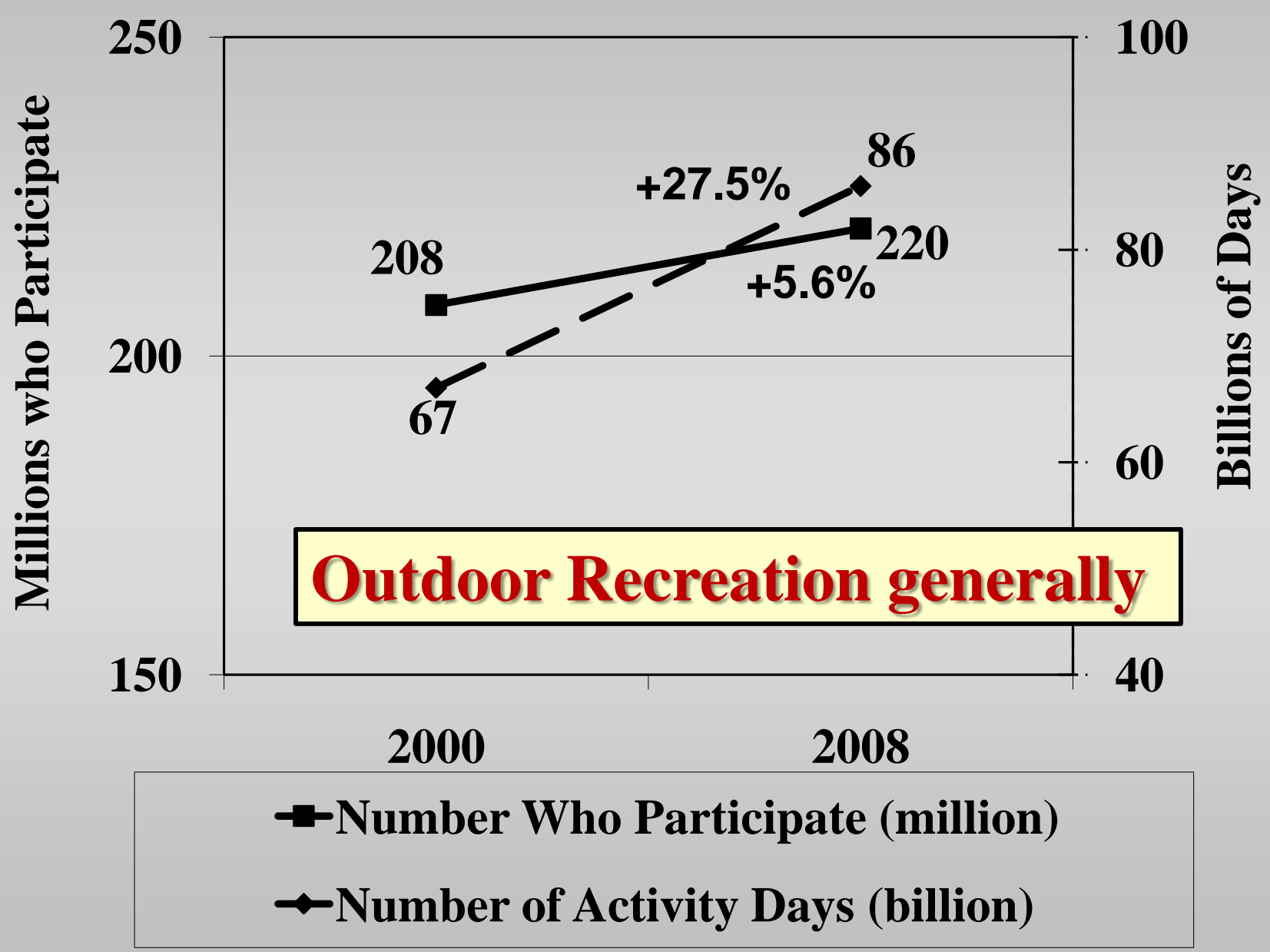
Demographic	Stratum	Percent of participants	Percent of nation	Ratio (1)/(2)	Percent participating
Gender	Male	62.9	48.2	1.30	26.6
	Female	37.1	51.8	0.72	14.6
Race/ethnicity	White, non-Hispanic	73.7	67.3	1.10	22.5
	Black, non-Hispanic	7.0	13.9	0.50	10.6
	American Indian, non-Hispanic	0.9	0.8	1.13	25.6
	Asian or Pacific Islander, non-Hispanic	1.2	3.6	0.33	6.7
	Hispanic	17.3	14.4	1.20	24.5
Age	16-24	26.0	15.8	1.65	33.3
	25-34	22.6	16.2	1.40	29.4
	35-44	20.2	16.9	1.20	25.3
	45-54	16.6	17.6	0.94	19.1
	55-64	7.9	13.6	0.58	11.9
	65+	6.7	20.0	0.34	6.8
Education	Less than high school	23.5	24.0	0.98	19.6
	High school graduate	28.4	26.9	1.06	21.6
	Some college	30.3	26.8	1.13	23.4
	College degree	12.7	14.4	0.88	18.0
	Post-graduate degree	5.0	7.9	0.63	13.1
	
Annual family income	<\$15,000	8.9	16.5	0.54	11.5
	\$15,000-\$24,999	7.5	11.4	0.66	13.2
	\$25,000-\$49,999	29.3	27.4	1.07	22.9
	\$50,000-\$74,999	19.7	18.3	1.08	22.8
	\$75,000-\$99,999	15.6	11.1	1.41	28.0
	\$100,000-\$149,999	11.9	9.4	1.27	26.3
	\$150,000+	7.0	6.0	1.17	23.5
Place of residence	Non-metro resident	23.5	17.5	1.34	27.5
	Metro area resident	76.5	82.5	0.93	18.9

Demographic	Stratum	Percent of participants	Percent of nation	Ratio (1)/(2)	Percent participating
All groups	All people age 16 & older	.	.	.	18.2
	
Gender	Male	62.0	48.2	1.29	23.3
	Female	38.0	51.8	0.73	13.4
Race/ethnicity	White, non-Hispanic	70.1	67.3	1.04	19.0
	Black, non-Hispanic	10.3	13.9	0.74	13.8
	American Indian, non-Hispanic	0.9	0.8	1.13	25.4
	Asian or Pacific Islander, non-Hispanic	2.2	3.6	0.61	10.3
	Hispanic	16.5	14.4	1.15	20.7
Age	16-24	24.2	15.8	1.53	27.7
	25-34	21.0	16.2	1.30	24.3
	35-44	24.1	16.9	1.43	26.6
	45-54	17.8	17.6	1.01	18.0
	55-64	8.2	13.6	0.60	10.7
	65+	4.8	20.0	0.24	4.4
Education	Less than high school	20.1	24.0	0.84	15.0
	High school graduate	23.6	26.9	0.88	16.0
	Some college	27.4	26.8	1.02	18.8
	College degree	18.5	14.4	1.28	23.0
	Post-graduate degree	10.4	7.9	1.32	24.0
Annual family income	<\$15,000	10.9	16.5	0.66	13.1
	\$15,000-\$24,999	6.4	11.4	0.56	10.5
	\$25,000-\$49,999	24.9	27.4	0.91	17.8
	\$50,000-\$74,999	19.1	18.3	1.04	20.9
	\$75,000-\$99,999	14.8	11.1	1.33	24.2
	\$100,000-\$149,999	14.9	9.4	1.59	29.9
	\$150,000+	9.1	6.0	1.52	29.2
	
Place of residence	Non-metro resident	17.3	17.5	0.99	18.0
	Metro area resident	82.7	82.5	1.00	18.2

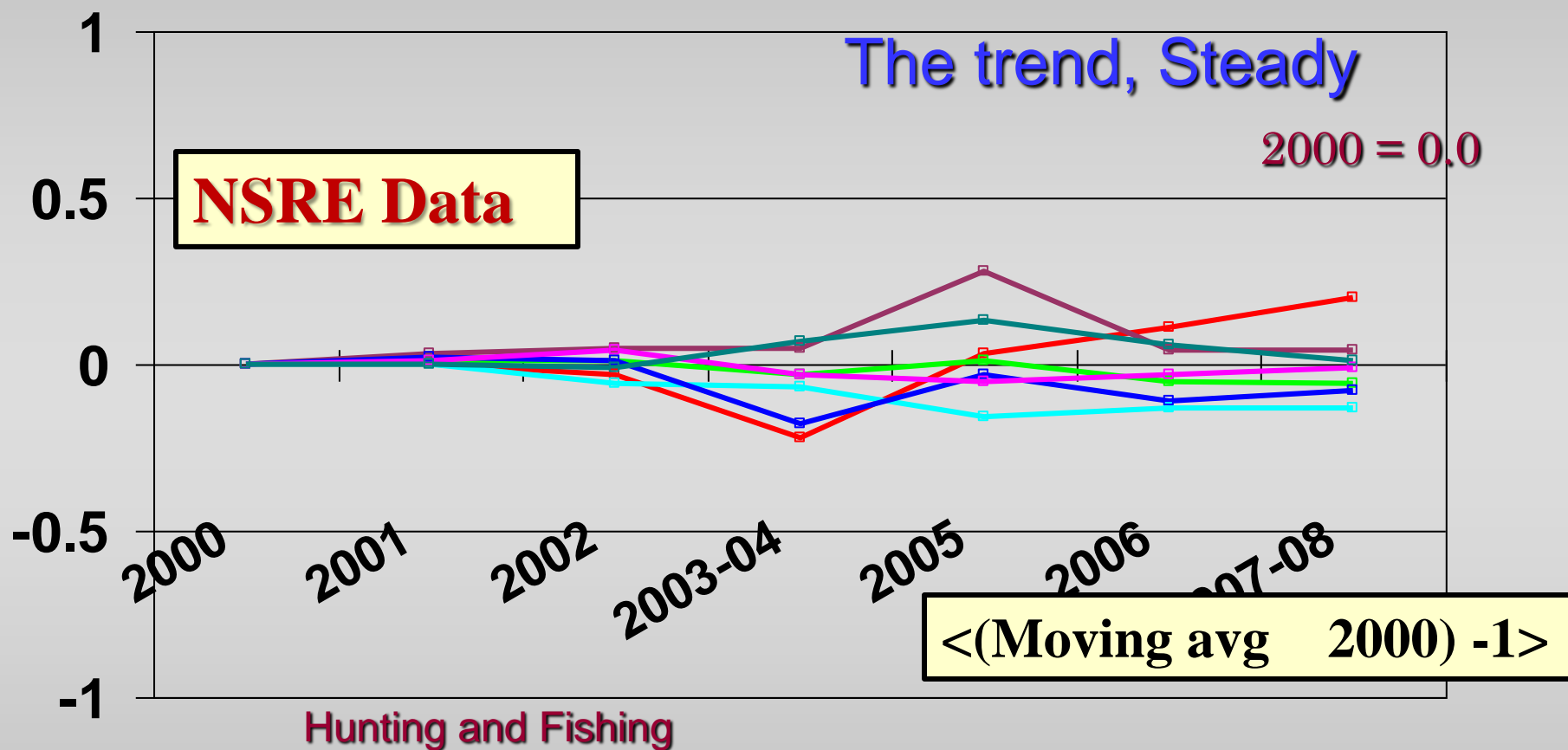
Demographic	Stratum	Percent of participants	Percent of nation	Ratio (1)/(2)	Percent participating
All groups	All people age 16 & older	.	.	.	11.8
	
Gender	Male	83.2	48.2	1.73	20.4
	Female	16.8	51.8	0.32	3.8
		.	.	.	
Race/ethnicity	White, non-Hispanic	84.8	67.3	1.26	14.9
	Black, non-Hispanic	4.7	13.9	0.34	4.0
	American Indian, non-Hispanic	0.9	0.8	1.13	14.2
	Asian or Pacific Islander, non-Hispanic	1.1	3.6	0.31	3.8
	Hispanic	8.4	14.4	0.58	6.9
	
Age	16-24	20.4	15.8	1.29	15.3
	25-34	19.2	16.2	1.19	14.1
	35-44	19.7	16.9	1.17	13.8
	45-54	20.0	17.6	1.14	13.5
	55-64	11.2	13.6	0.82	9.8
	65+	9.6	20.0	0.48	5.7
	
Education	Less than high school	22.6	24.0	0.94	11.1
	High school graduate	33.2	26.9	1.23	14.5
	Some college	28.0	26.8	1.04	12.2
	College degree	11.8	14.4	0.82	9.6
	Post-graduate degree	4.4	7.9	0.56	6.5
	
Annual family income	<\$15,000	9.5	16.5	0.58	7.2
	\$15,000-\$24,999	9.1	11.4	0.80	10.0
	\$25,000-\$49,999	28.7	27.4	1.05	13.1
	\$50,000-\$74,999	21.5	18.3	1.17	14.8
	\$75,000-\$99,999	14.9	11.1	1.34	16.8
	\$100,000-\$149,999	10.0	9.4	1.06	13.4
	\$150,000+	6.4	6.0	1.07	13.4
	
Place of residence	Non-metro resident	31.5	17.5	1.80	21.1
	Metro area resident	68.5	82.5	0.83	9.8

Recreation participation differs across regions						Rocky Mountains		Pacific Coast	
	North		South		Mountains		Pacific Coast		
Activity	%	(1,000s)	%	(1,000s)	%	(1,000s)	%	(1,000s)	
View natural scenery	62.4	61,503.3	58.9	46,660.7	69.3	14,625.6	66.9	25,306.3	
Picnicking	54.0	53,348.5	43.5	34,532.2	54.6	11,529.4	55.0	20,835.1	
View wildflowers/trees	50.2	49,463.8	48.6	38,528.2	53.8	11,349.7	54.1	20,439.2	
View wildlife besides birds and fish	50.2	49,359.4	48.4	38,305.7	55.3	11,645.4	46.8	17,682.4	
Swimming in lakes, ponds, etc.	42.8	42,029.4	38.5	30,407.3	33.8	7,109.6	42.1	15,868.5	
View or photograph birds	36.7	36,079.5	34.0	26,819.3	32.1	6,750.2	33.6	12,661.2	
Day hiking	32.3	32,089.1	24.6	19,663.5	46.9	9,991.1	42.8	16,347.7	
Gather mushrooms/berries	34.6	33,991.6	31.8	25,113.4	31.0	6,512.8	27.2	10,259.1	
Visit a wilderness	29.3	28,996.1	28.7	22,843.4	45.7	9,668.8	37.6	14,266.3	
View salt/freshwater fish	25.1	24,635.7	29.0	22,865.5	23.9	5,026.0	28.1	10,596.1	
Camp at developed sites	20.7	20,566.0	20.2	16,081.1	34.3	7,285.6	32.0	12,168.3	
Drive off-road	16.4	16,187.2	21.2	16,784.1	27.3	5,765.1	23.2	8,783.2	
Bicycling on mountain/hybrid bike	18.8	18,532.7	15.9	12,618.3	19.4	4,110.8	20.0	7,582.1	
Coldwater fishing	11.2	11,254.9	8.9	7,169.6	23.0	4,937.6	17.6	6,768.9	
Backpacking on trails	8.0	8,043.0	7.6	6,141.4	16.1	3,440.7	13.9	5,349.1	
Canoeing	11.7	11,473.1	8.6	6,769.5	6.8	1,415.4	6.5	2,418.9	
Big game hunting	6.7	6,518.4	8.1	6,336.0	11.0	2,306.8	3.1	1,151.7	
Small game hunting	6.6	6,402.7	8.0	6,264.8	9.8	2,045.5	3.4	1,279.3	
Kayaking	6.3	6,244.5	4.3	3,400.3	4.4	926.5	7.4	2,805.9	

Figure 1.—Growth in number of people and number of participation days in 60 outdoor activities in the United States, 2000–2008

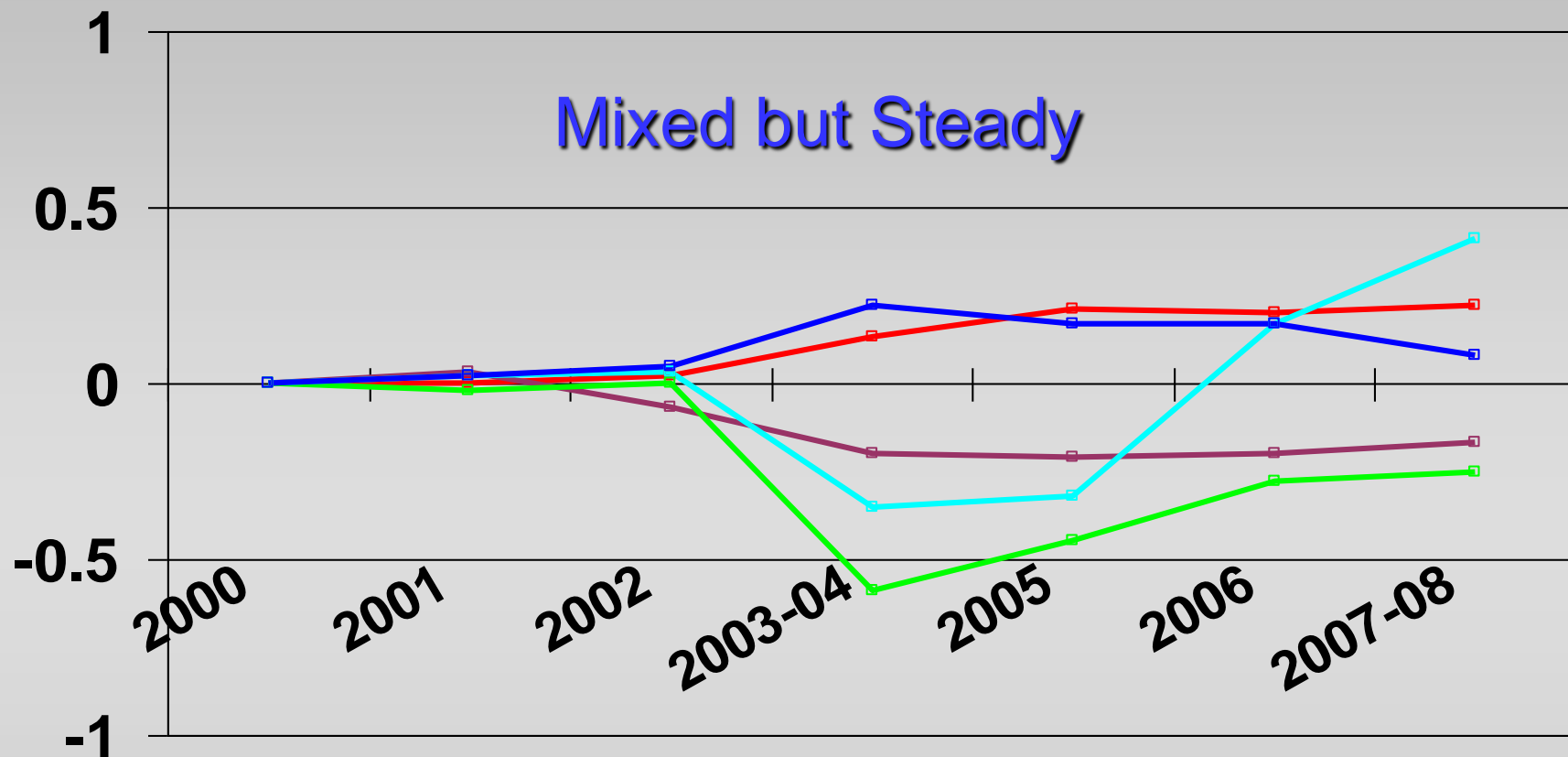


The Trend Story---Total annual recreation activity days, moving 3-year averages



Anadromous fishing	Big game hunting	Coldwater fishing	Migratory bird hunting
Saltwater fishing	Small Game hunting	Warmwater fishing	

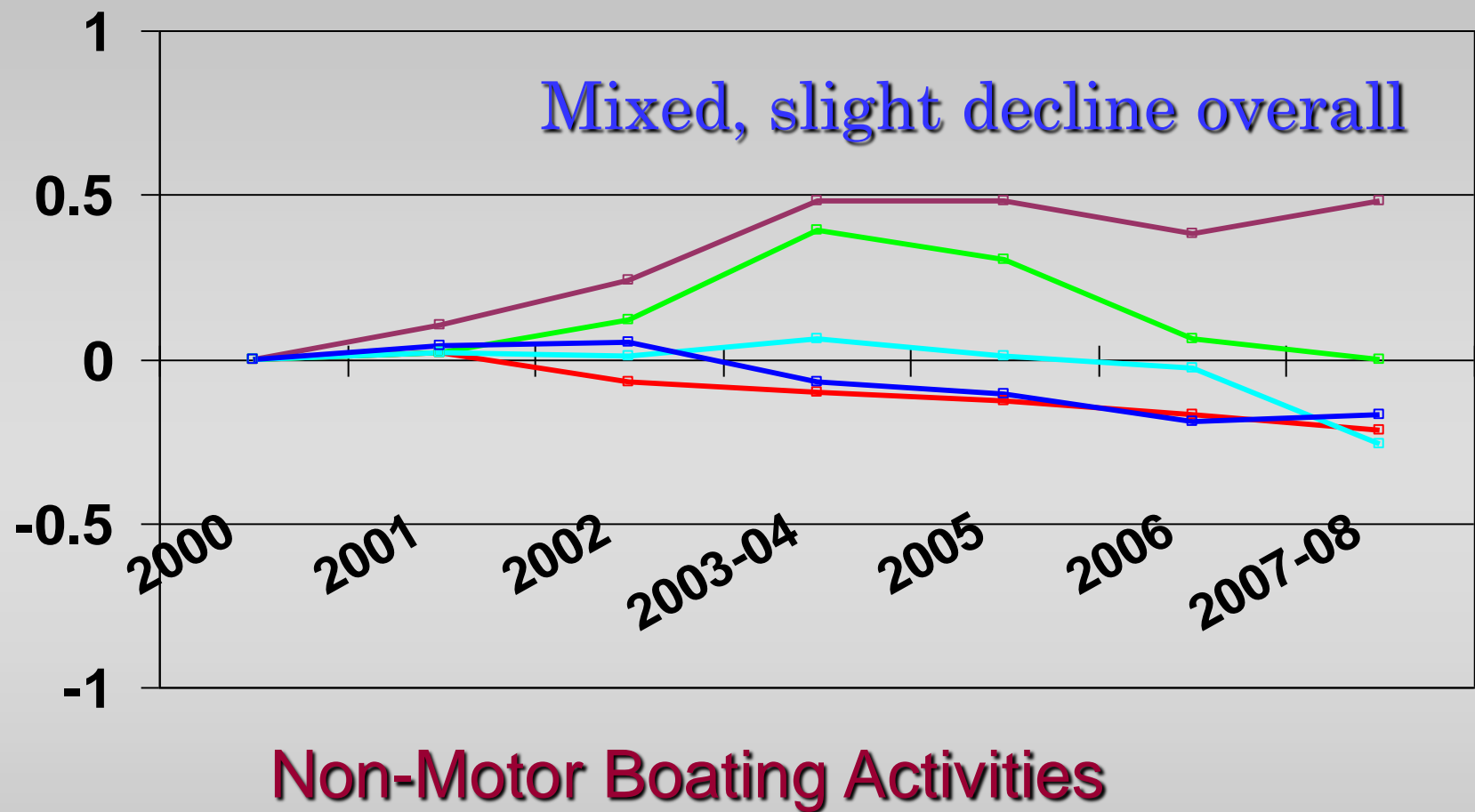
Total annual recreation activity days, moving 3-year averages



Backcountry Activities

- Backpacking
- Horseback riding on trails
- Visit a wilderness or primitive area
- Day hiking
- Mountain climbing

Total annual recreation activity days, moving 3-year averages



Canoeing

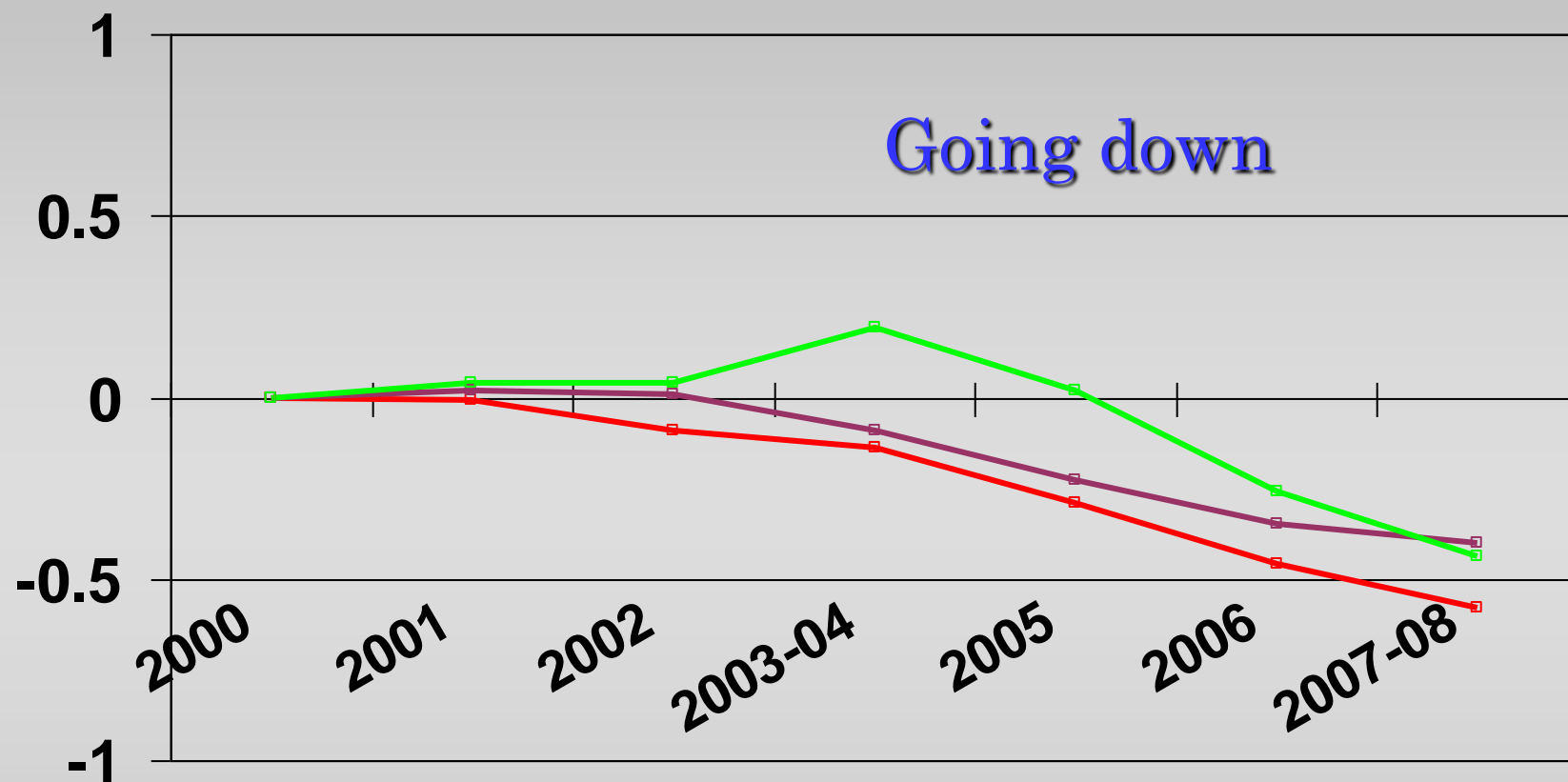
Kayaking

Rafting

Rowing

Sailing

Total annual recreation activity days, moving 3-year averages



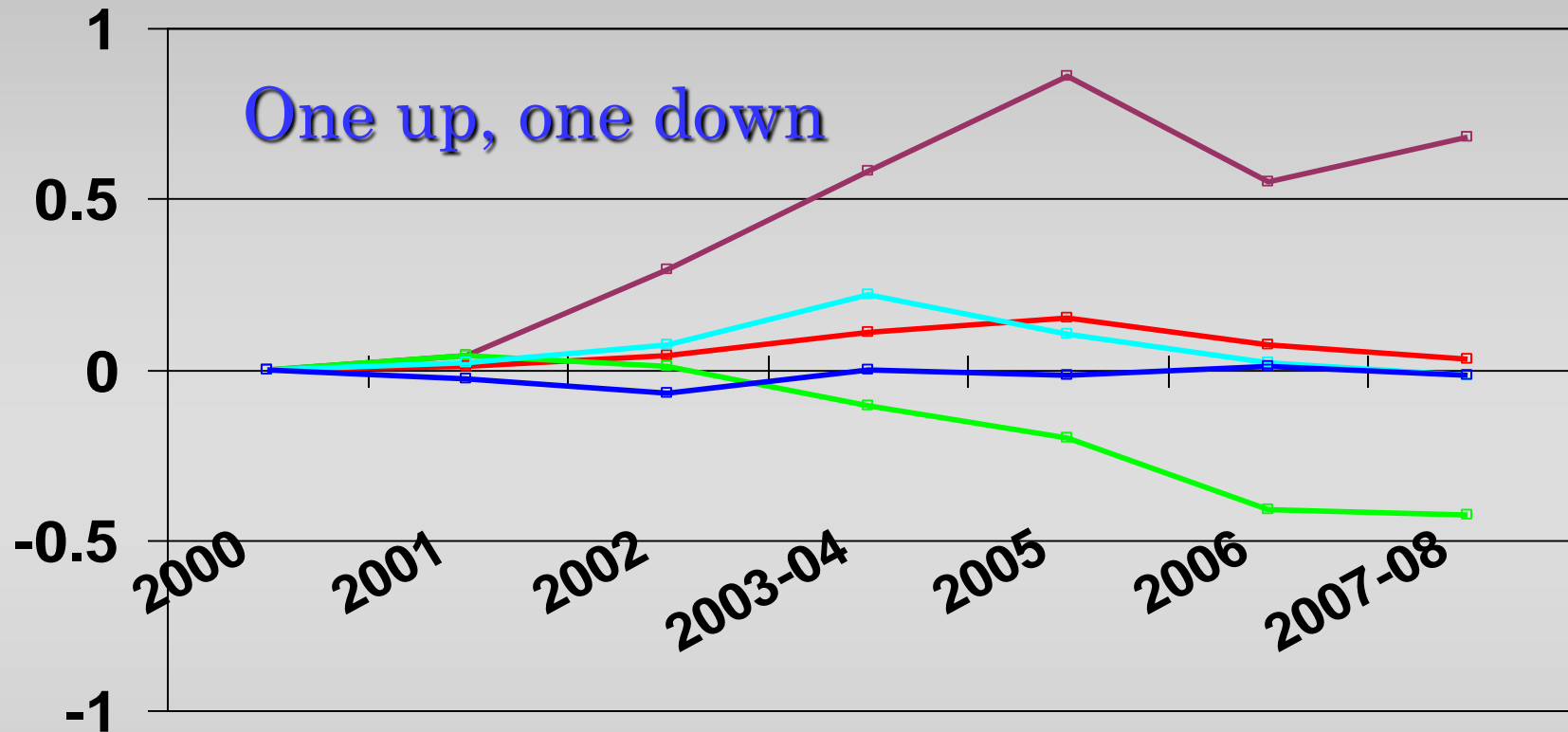
Snow Skiing and Boarding

— Cross country skiing

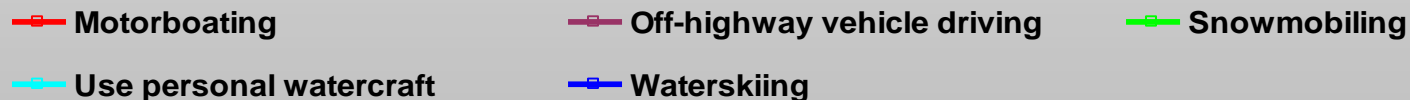
— Downhill skiing

— Snowboarding

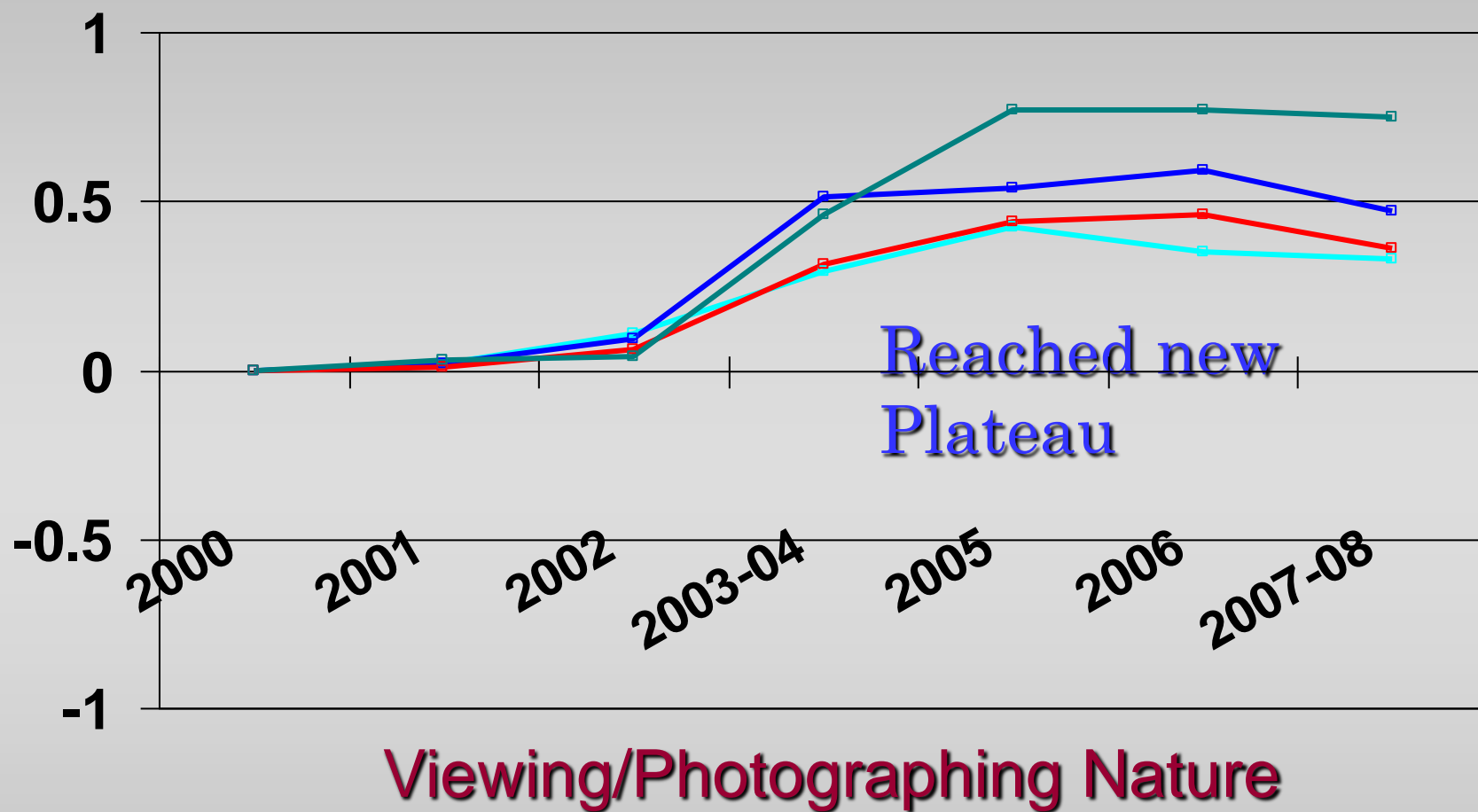
Total annual recreation activity days, moving 3-year averages



Motorized Activities



Total annual recreation activity days, moving 3-year averages



View/photograph birds

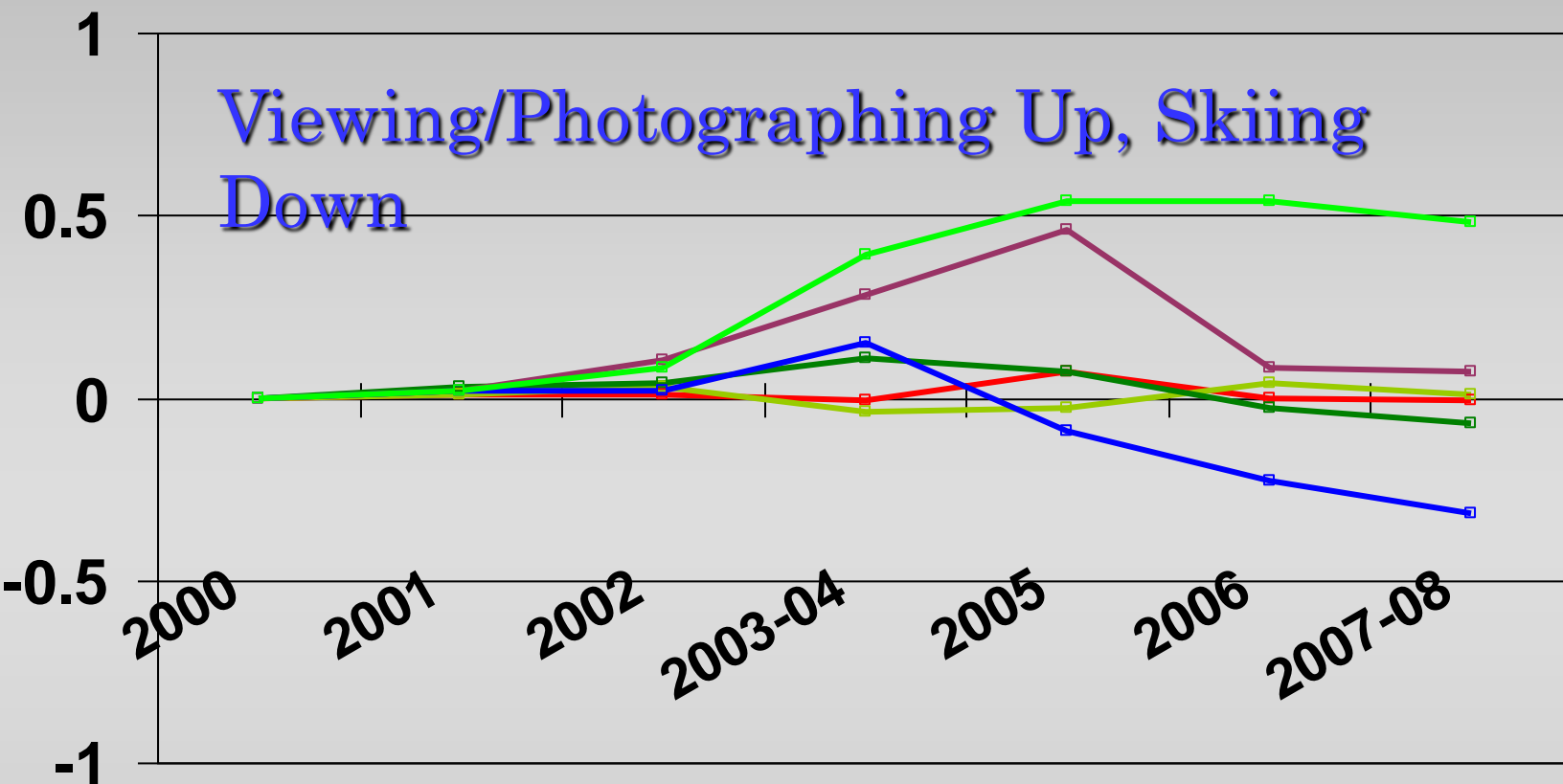
View/photograph natural scenery

View/photograph other wildlife

View/photograph wildflowers, trees, etc.

NSRE – National Survey on Recreation and the Environment

Total annual recreation activity days, moving 3-year averages



Indexing for Groupings of Activities

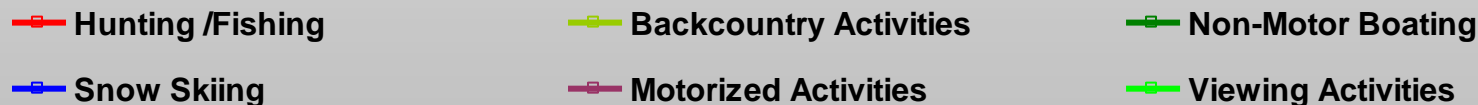


Figure 1.—Growth in number of people and number of participation days in 60 outdoor activities in the United States, 2000–2008

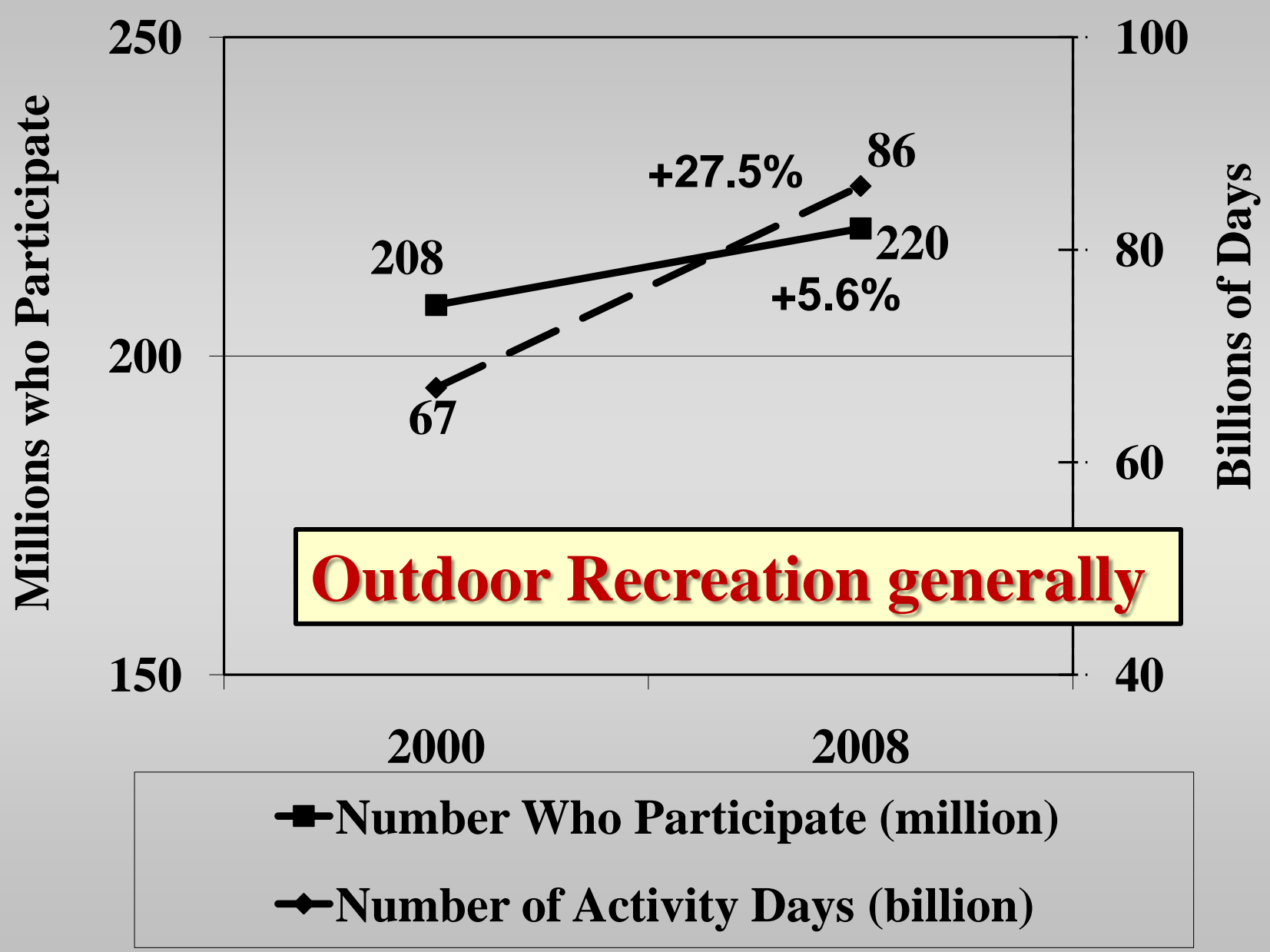
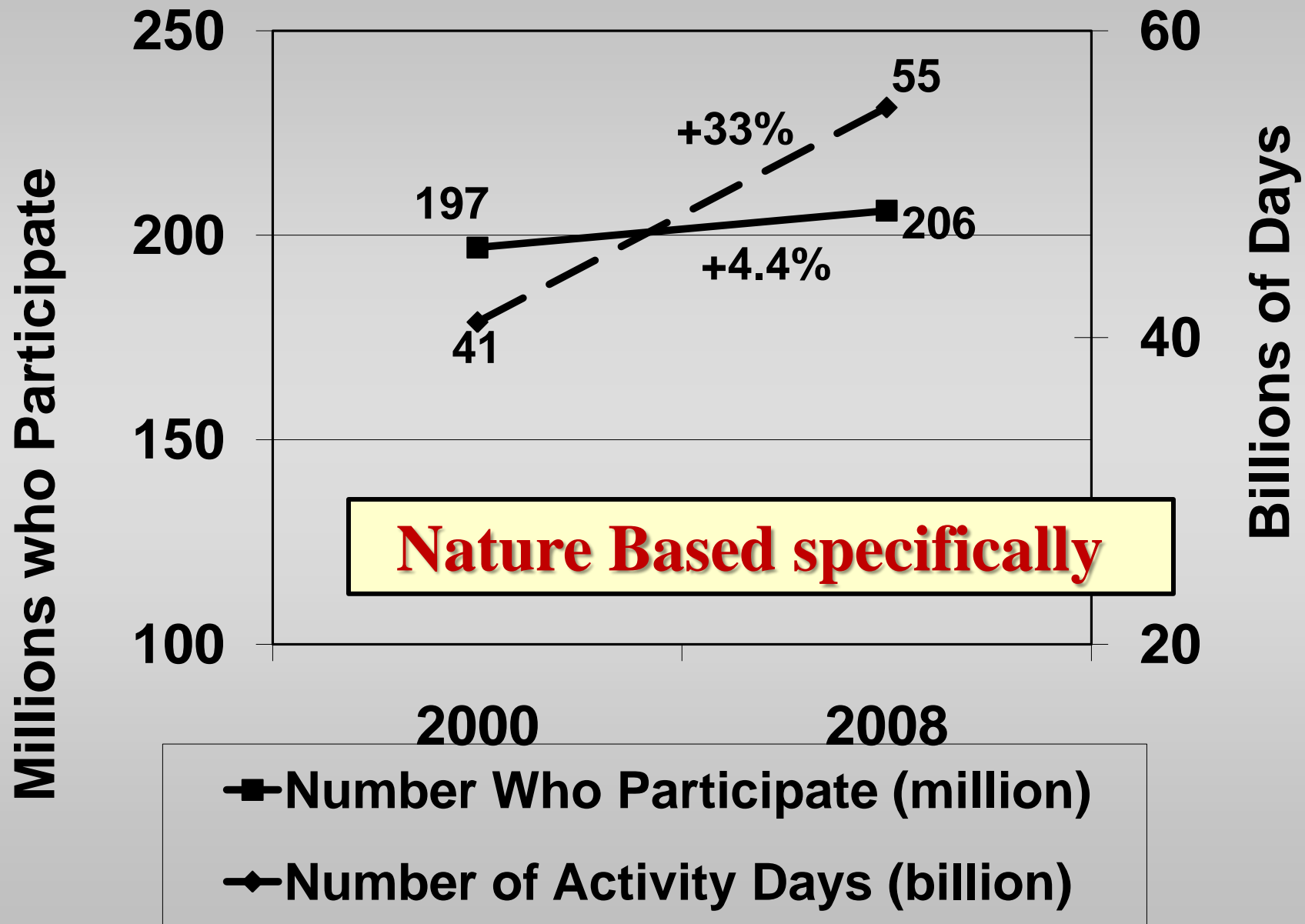


Figure 2.—Growth in number of people and number of participation days in 50 nature-based outdoor recreation activities



Findings from the National Kids Survey— Time outdoors, Youth age 6 - 19

Gender and Time Outdoors Per Day	Male		Female	
	Week- day	Weekend day	Week- day	Weekend day
None	2.5	4.1	2.6	4.9
Less than 1/2 hour a day	3.6	0.9	6.2	3.6
About 1/2 hour a day	6.9	3.2	10.2	5.0
About 1 hour	19.6	10.3	26.6	14.4
2-3 hours	32.0	24.9	30.8	29.5
4 or more hours	35.4	56.6	23.6	42.6

Findings from the National Kids Survey— Time outdoors

Age and Time Outdoors	6-9		10-12		13-15		16-19	
Time	Week- day	Weekend day	Week- day	Weekend day	Week- day	Weekend day	Week- day	Weekend day
None	2.4	2.6	3.9	4.5	1.8	3.1	2.3	7.7
Less than 1/2 hour a day	4.4	2.0	2.8	1.1	5.1	1.0	6.9	4.4
About 1/2 hour a day	8.9	2.0	7.4	4.6	8.2	3.8	9.4	6.2
About 1 hour	26.4	10.4	25.2	6.0	17.4	12.0	22.0	19.6
2-3 hours	35.1	29.5	28.2	26.9	33.6	29.2	28.0	23.1
4 or more hours	22.8	53.4	32.6	57.0	33.9	50.9	31.4	39.1

Findings from the National Kids Survey— Outdoor activities

Outdoor Activity	Male	Female	Total
Just play outdoors or hang out	87.5	78.4	83.0
Biking, jogging, walking, skate boarding, etc	77.7	80.1	78.8
Listen to music, watch movies, or use electronic device	51.3	59.5	55.4
Playing or practicing team sports	60.5	40.3	50.8
Reading or studying while sitting outdoors	38.5	51.1	44.5
Other sports, e.g., tennis, golf	37.5	35.5	36.6
Attending camps, field trips, outdoor classes	30.8	39.1	34.8
Bird watching, wildlife viewing, etc	28.2	33.1	30.5
Swimming, diving, snorkeling, etc	29.3	28.8	28.9
Hiking, camping, fishing, etc	29.0	26.7	27.8
Riding motorcycles, ATVs, other off-road vehicles	24.4	15.8	20.2
Other outdoor activities	10.3	11.6	10.9
Snow skiing, snowboarding, cross-country skiing	9.4	8.4	8.9
Boating, jet skiing, water skiing, etc	7.9	7.2	7.5
Rowing, kayaking, canoeing, surfing, etc	8.5	6.3	7.4

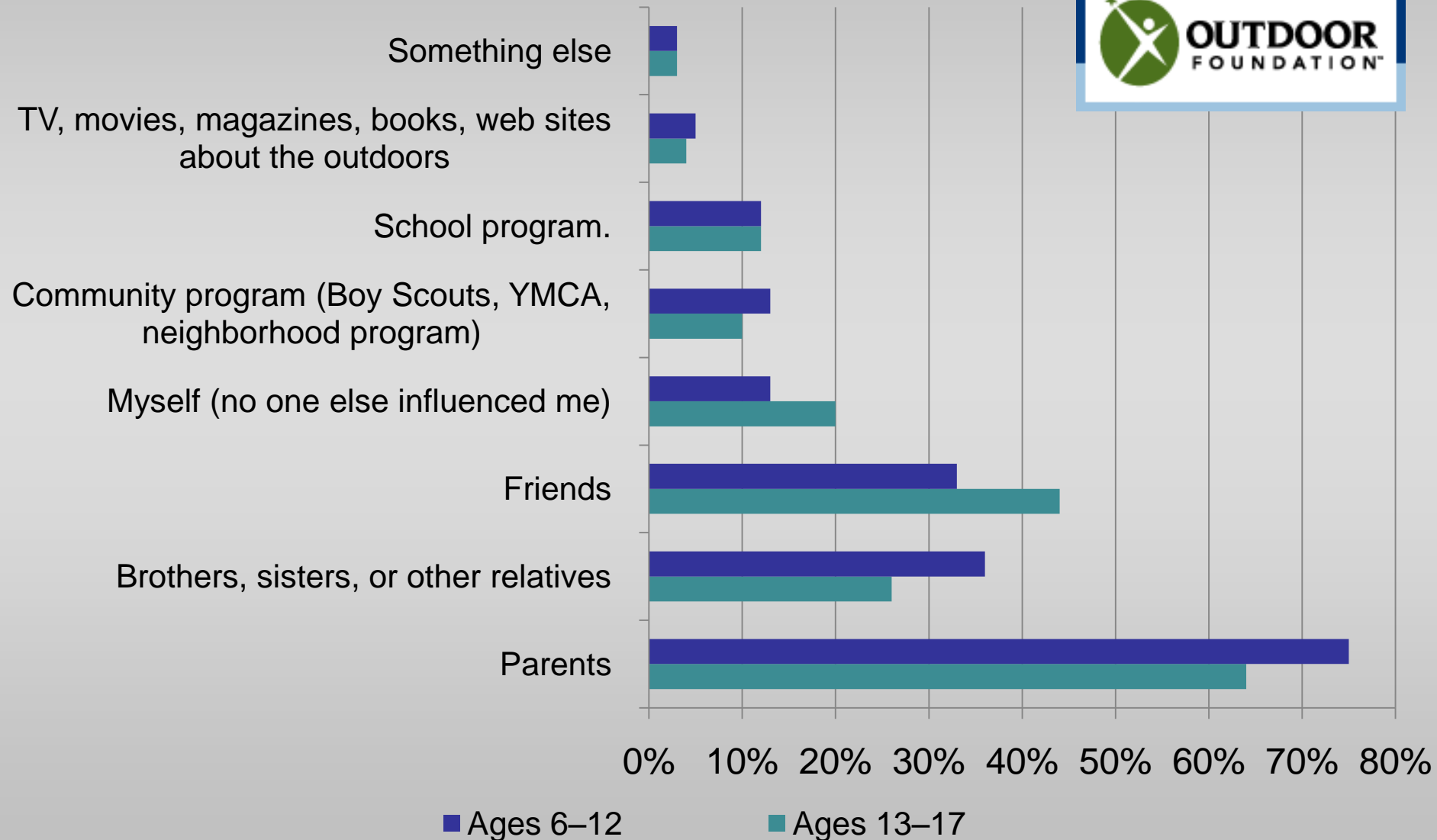
Estimated percentages of kids in the U.S. by gender and reason for not spending more time, 2007 – 2009

Reasons	Male	Female	Total
Interested in music, art, reading, etc	50.0	66.4	57.9
Interested in video games, DVDs and tv	55.9	41.0	48.6
Interested in Internet, text messaging, etc	38.4	57.7	47.8
More involved in indoor sports	34.5	41.3	37.8
Other reason time not spent outdoors	28.3	38.7	33.3
Neighborhood does not have good access	22.0	28.7	25.2
Spend time at mall, shopping, hanging out	21.2	26.4	23.7
Don't have anyone to play outdoors with	19.9	23.2	21.5
Don't have transportation	16.5	24.8	20.6
It is not safe to play or do sports outside	16.9	9.8	13.4
Was injured or developed a health problem	9.8	6.0	8.0

**Percent of youth 6 to 19 indicating the activity
in which they spent the most time in past week**

Activity spent most time doing	Percent
Just play outdoors or hang out	27.1
Playing/practicing team sports	25.5
Biking, jogging, walking, skate boarding, etc	18.4
Swimming, diving, snorkeling, etc	6.6
Reading, studying while sitting outdoors	6.1
Playing/practicing other sports	3.7
Riding motorcycles, ATVs, other off-road vehicles	3.5
Hiking, camping, fishing, etc.	3.3
Other	2.3
Attending camps, field trips, outdoor classes	1.5
Snow skiing, snowboarding, cross-country skiing	0.7
Bird watching, wildlife viewing, nature study	0.6
Rowing, kayaking, canoeing, surfing, etc	0.3
Boating, jet skiing, water skiing, etc	0.3

Who influenced your decision to participate in outdoor activities?



Some more interesting stuff from NSRE

When considering rising gasoline and transportation prices, percent who said they took fewer, about the same number, or more trips for their favorite activity compared with 12 months ago (n=982)

Trips taken compared to last year	Percent
Fewer	44.5
About the same	43.2
More	8.6
Refused	2.0
Don't know	1.7
	100.0

Percent who cited selected reasons for taking **fewer trips** for their favorite activity compared to a year ago (n=431)

Reason for taking fewer trips	Percent
Reduced number of trips anywhere	52.9
Found places closer to home	41.4
Found other outdoor activities to do	46.2
Spend more time indoors	55.6
Other reasons why you are now taking fewer trips	73.9

Over
1/2

Visitation to Public Lands

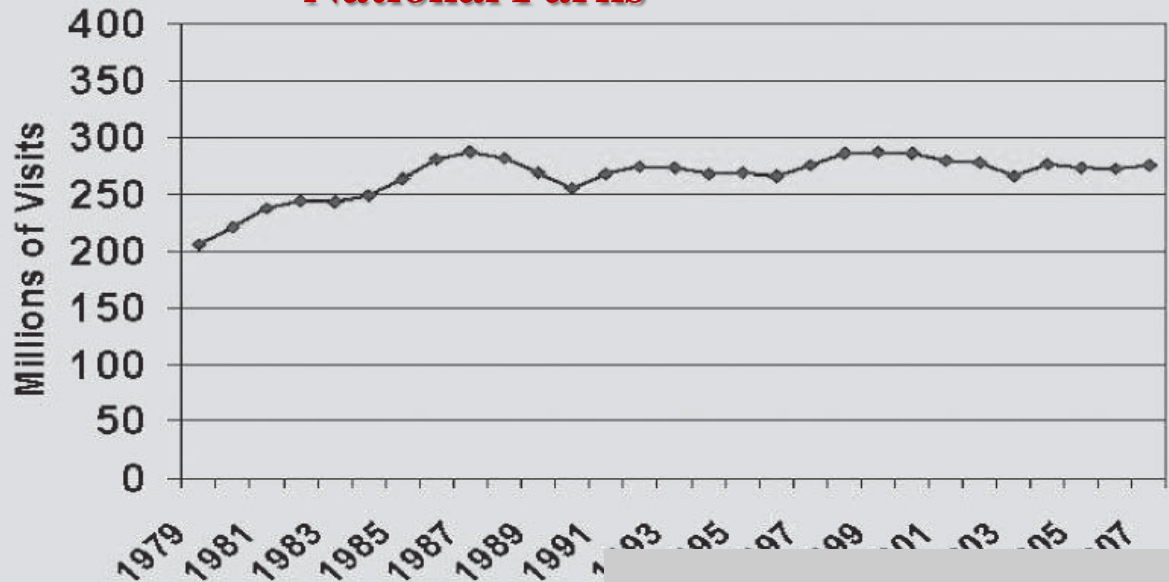
- A paper last year in the PNAS said that **public land visitation was in steep decline**.
- But, agency data showed that state park, national park, national wildlife refuge and BLM visitation actually has been relatively **stable or increasing** since the 90s.
- State park visitation in 2008 **rose** back above the former level reported in 2001 (a 1.6% increase) (National Association of State Park Directors, 2009).
- National Park visitation has been **stable** since 2001 (275 in 2008)
- National wildlife refuge visitation has **grown** from 33 million in 1998 to over 41 million in 2008, growth of 24 percent

Year (Millions of Visits)

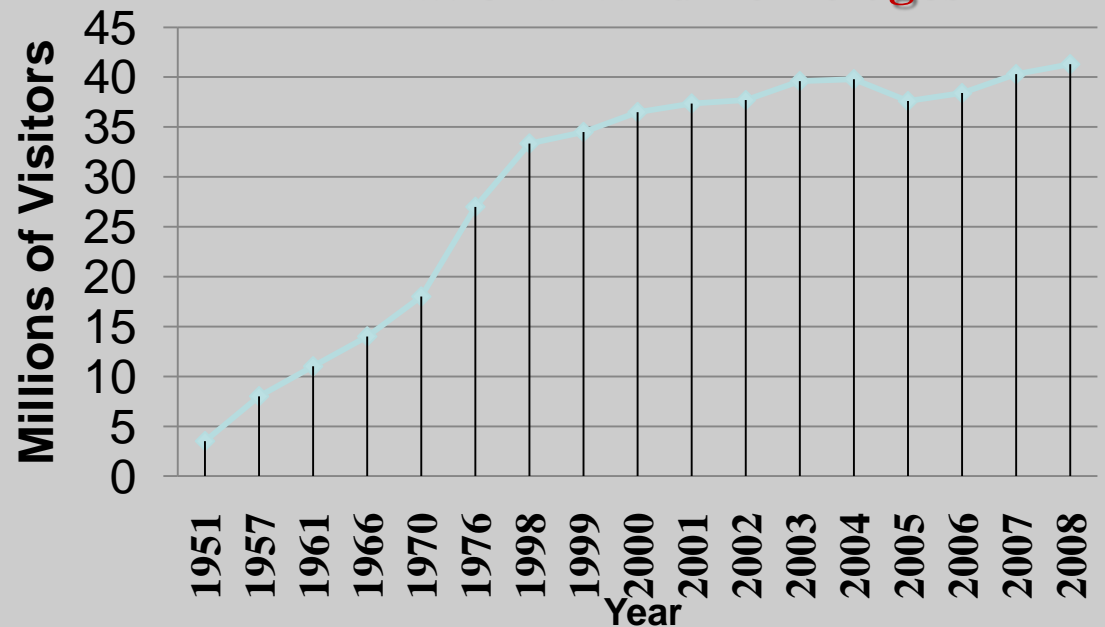
1975	471
1985	660
1995	746
2000	767
2001	735
2003	735
2005	715
2006	711
2007	740
2008	747

State
Park
Trend

National Parks



National Wildlife Refuges



NSRE Estimates of visits to wilderness or other wild or primitive places

1999-2001

2005-2009

Change 1999-2009

Visit a
wilderness

14.2%

971.8

15.0%

1,137.5

17.1%

165.7

NSRE since 1994

Contributions from other Scientists—so far

Richard Aiken and Anna Harris (FWS)

Preserving the Hunting Heritage: Rise in Youth Hunting

Chris Fanning and Brian Mauher (Outdoor Foundation)

Active Outdoor Participation

Barry A. Garst, Daniel R. Williams (RMRS), and, Joseph W. Roggenbuck

Trends in Developed Forest Camping

Debbie Chavez (PSW)

Geocaching: Form, Function & Opportunity

Latinos and Outdoor Recreation

Glen Hvenegaard (U. Alberta)

**Wildlife Festivals in North America: Growth and Economic
Importance**

Pat Winter (PSW)

The Intersection of Trust and Recreation Management

**The Sustainability of Outdoor Recreation and Tourism: Findings from
a Survey of Forest Service Managers**

Values of the Urban Wilderness Visit

**Others which are hopefully coming (Don English/Stam Zarnoch, Visitation to NFs
//Neal Haggendorn, Visits to AK NFs //Gary Green et al, Constraints to
Recreation Participation//.....)**

Summary of Trends

- Recreation activities widely popular in the 1950s through the 1980s, were still popular at the turn of the century
- However, there have been many **profound changes** over the last 50 years that affect what people choose to do (or not do) for their outdoor recreation
- The popularity of outdoor recreation continued to grow up through the beginning of this decade , and change, e.g., popularity of birding and some forms of motorized activity.
- By the beginning of this century, rising interest in observing and studying/learning about nature was becoming quite evident
- A very noticeable change by 2000ish was growth in the proportion of the total population that participated in outdoor activities.

Summary of Trends

- Outdoor recreation generally, and **nature-based recreation especially**, are still growing through 2009.
- The mix of Americans' activities, however, is continuing to change (noticeably, rising interest in viewing/photographing nature and motorized off-highway riding)
- In the meantime, interest in some of the more traditional activities have been declining (e.g., picnicking, visiting historic sites, canoeing, rafting)
- The jury is still out on time and activities by Kids outdoors, but it is clear they do spend time outdoors

Forecasting Future Recreation Participation

- **Forecast outdoor recreation participation and participation days 2010 to 2060 for:**
 - **17 activities/groupings**
 - **National & 4 RPA regions**
 - **3-ish story lines/scenarios**
 - **3 x 5 x 17 x 2 → some serious simulatin'**

10 Primary Activities

- **Birding**
- **Equestrian**
- **Hiking/backpacking**
- **Canoeing/kayaking/rafting**
- **Fishing**
- **Hunting**
- **Snow skiing/snow boarding**
- **Motorized off-road use**
- **Motorized water use**
- **Motorized snow use**

7 Activity Groupings

- **Viewing**, photographing, studying, gathering nature (birds, scenery, flowers/trees, wildlife, fish, gathering natural products)
- **Visiting interpretive sites** (nature centers, zoos, historic sites, prehistoric sites)
- **Using developed sites** (Family gatherings, picnicking, developed camping)
- **Winter activities** (ice skating, cross country, sledding, snow shoeing)
- **Swimming** (swimming, visit a beach, visit another waterside, surfing, snorkeling, diving)
- **Challenge activities** (mountain biking, mountain climbing, rock climbing, caving)
- **Visiting primitive areas**, primitive camping, backpacking

2. Recreation and protected land resources: National, regional and county patterns

- **Nature Based Recreation Resources**
 - Recreation access to private lands (NWLOS, Brett Butler)
 - Recreation access to other private lands
 - Private business sector (County Business Patterns)
 - Second and vacation homes (Census of Housing and NSRE second home ownership Qs)
 - Private sector role in providing services on public land (Margaret Bailey, HCM, 10/20/09)
 - Local Government Systems (Harnik on largest cities)
 - State Park Systems (Including NASPD survey data)
 - Federal Government Systems (RECGOV)
- **Protected Lands**
 - Private
 - Local Government
 - State Government
 - Federal Wilderness System
 - Other Federal Systems

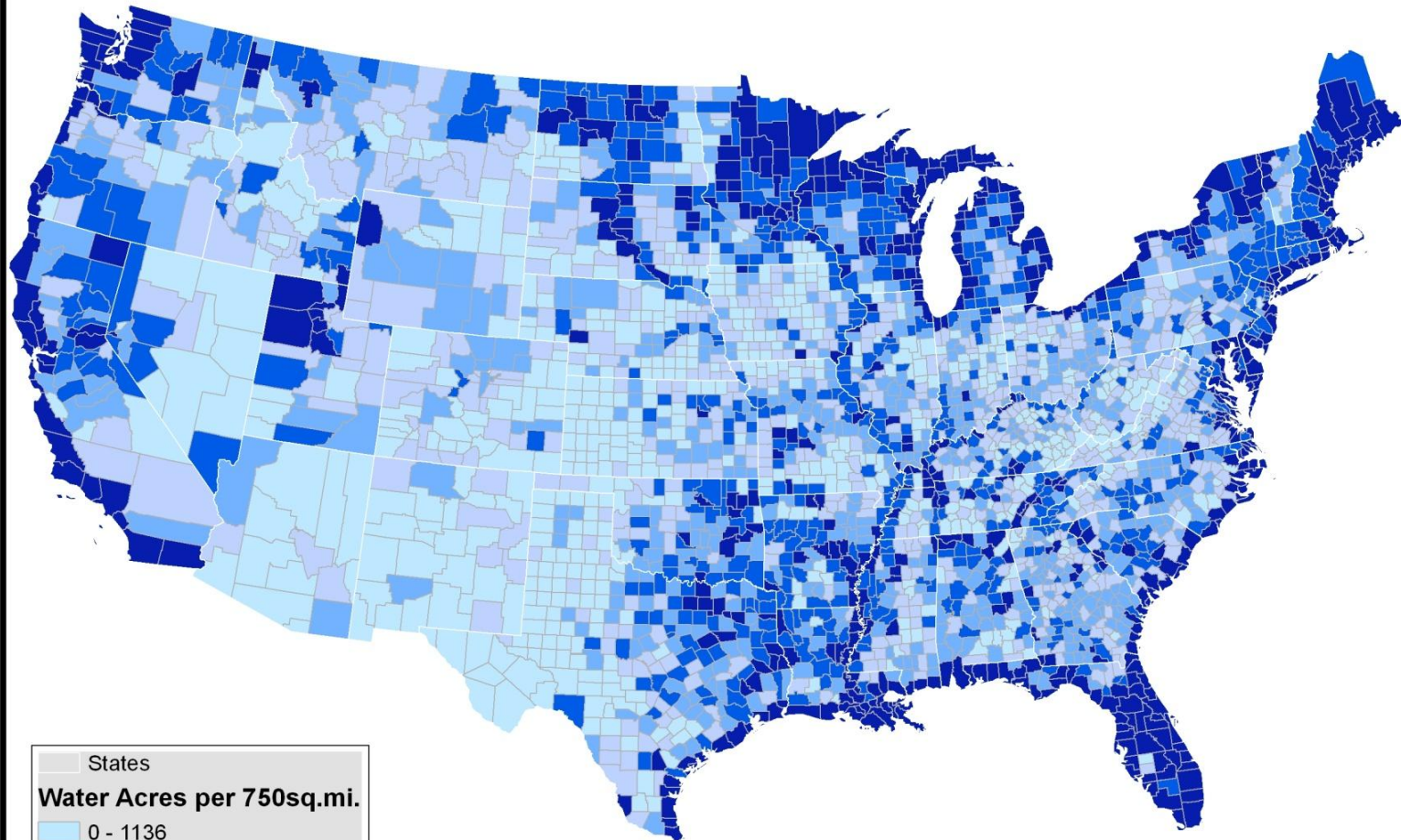
Creating recreation and amenities data base with individual and neighboring counties by distance zones:
***Distance zones include within, 30, 50, 100 and 200 miles**

- **AMENITIES** **Climate, natural features, housing units**
- **LANDAREA** **Total land and water area, federal and state**
- **RECGOV** **Federal recreation sites/facilities**
- **CBP07** **2007 Co. Business Patterns recreation bus.**
- **LOCALGOVT** **2007 Census of Governments, local P&R**
- **POP** **Population projections to 2060, IPCC A1/A2/ B2**
- **DPI_A1** **Disposable personal income based A1/A2/B2**
- **LANDUSE** **Land use projections to 2062, Ralph's**
- **Other Vars.** **Airports, seasonal homes,**

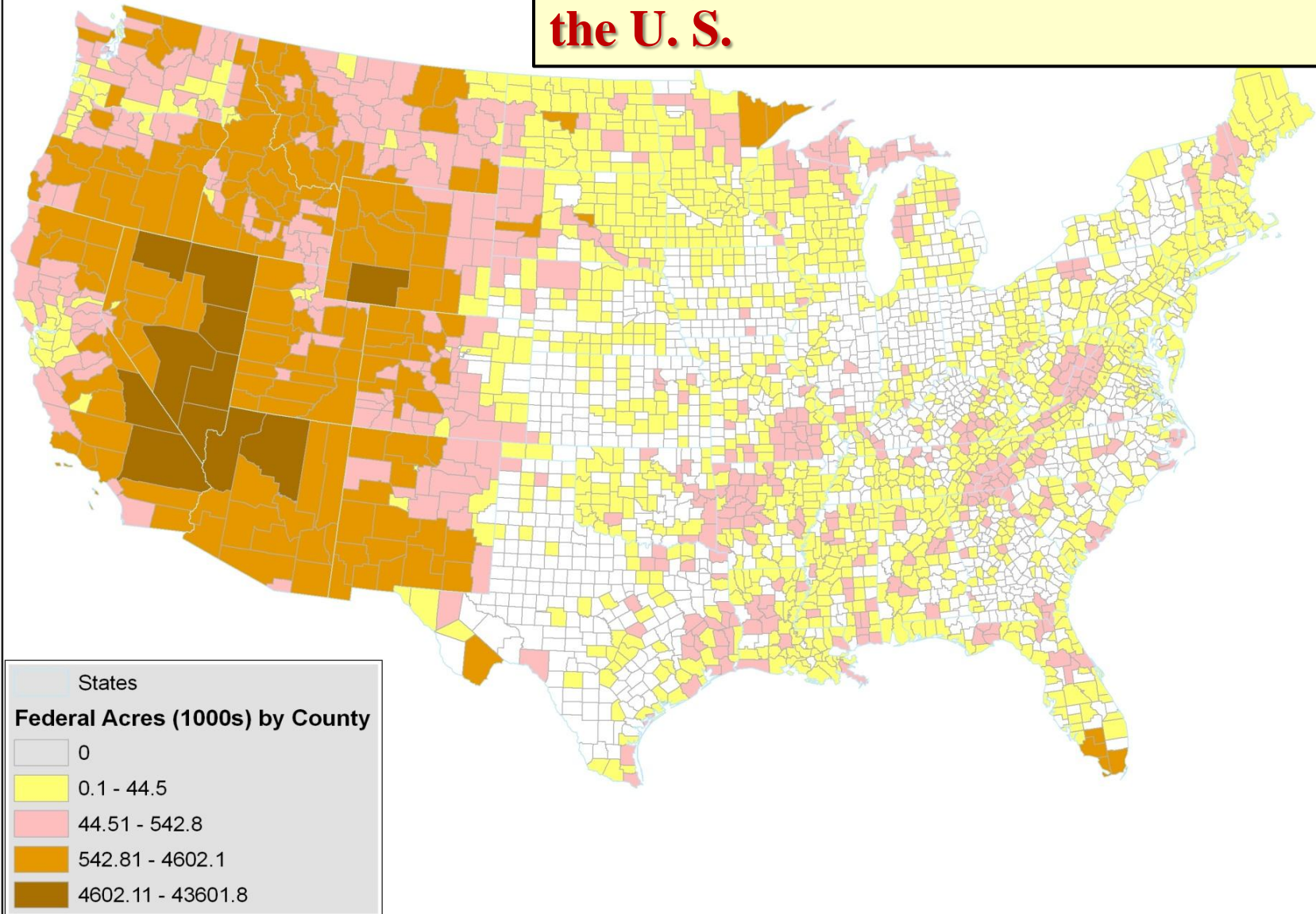
Examples of county level resources inventory

- **fips**
- **pop2008** **2008 population estimate**
- **waterarea** **Total water area (acres)**
- **federal** **Total federal government land (acres)**
- **forest** **Private forest land (acres)**
- **recbiz** **Total number of establishments for 9 recreation-related businesses**
 - **721211 RV (Recreational Vehicle) Parks and Campgrounds**
 - **721214 Recreational and Vacation Camps (except Campgrounds)**
 - **712120 Historical Sites**
 - **712130 Zoos and Botanical Gardens**
 - **713910 Golf Courses and Country Clubs**
 - **713920 Skiing Facilities**
 - **713930 Marinas**
 - **712190 Nature Parks and Other Similar Institutions**
 - **713110 Amusement and Theme Parks**
- **Per capita areas:**
 - **waterarea, federal, and forest area acres per 1,000 people**
 - **recbiz is number of establishments per 10,000 people**

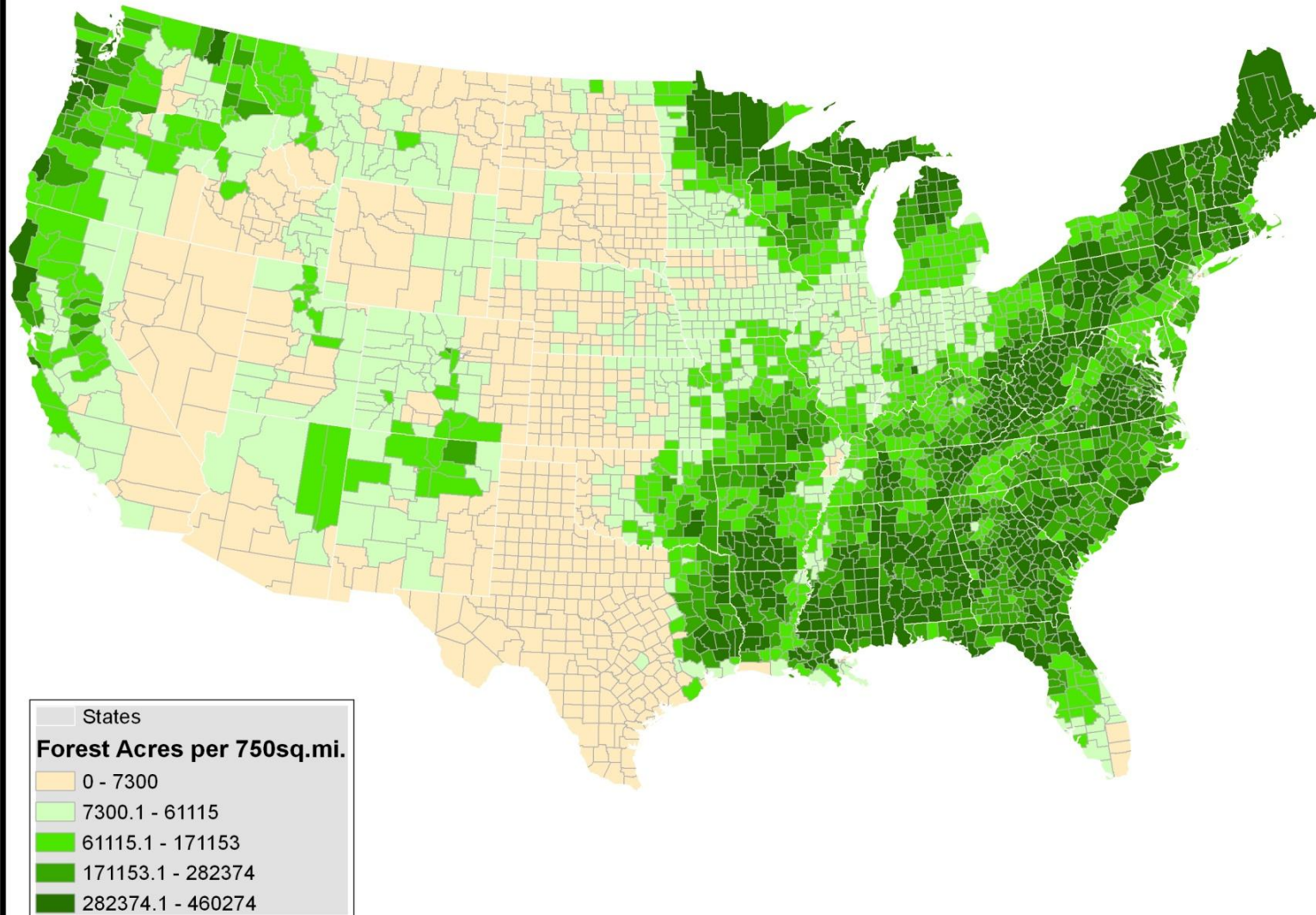
County Patterns of water areas in the U. S.



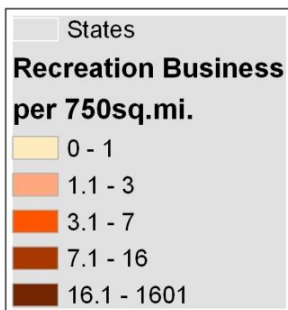
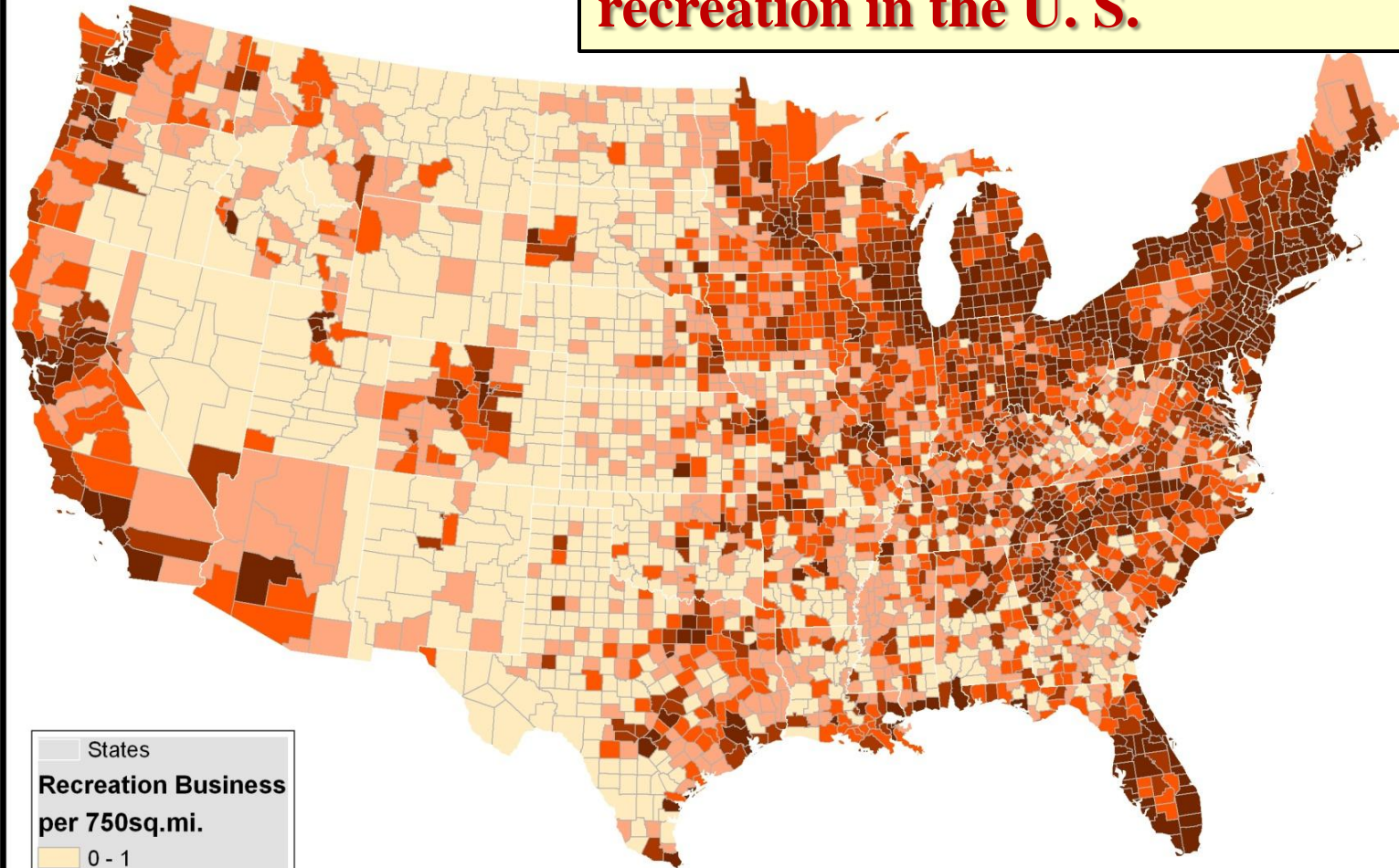
County Patterns of federal lands in the U. S.



County Patterns of forest area in the U. S.

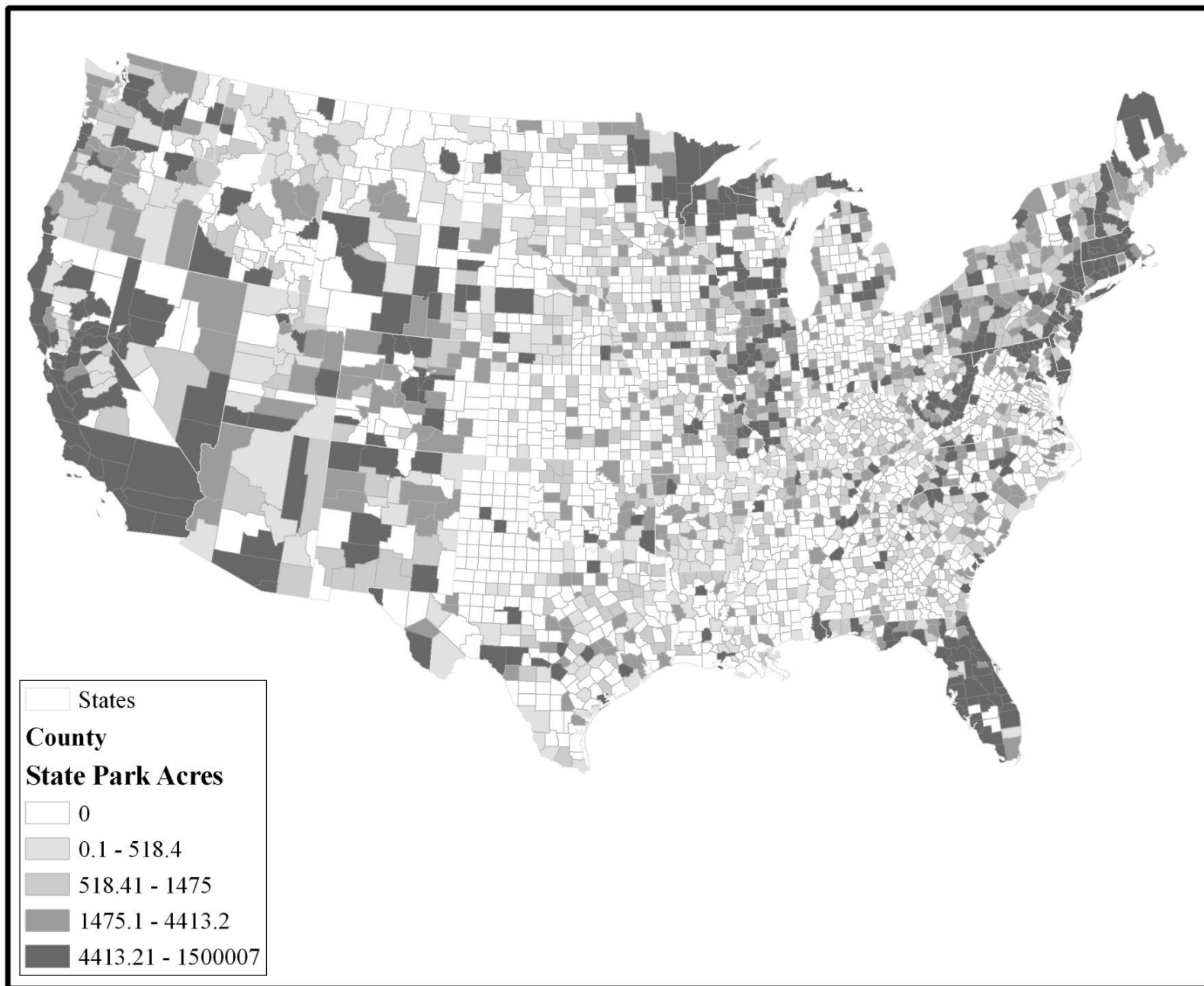


County Patterns of numbers of businesses connected to outdoor recreation in the U. S.



Creating park-level state park system data base for the U. S.

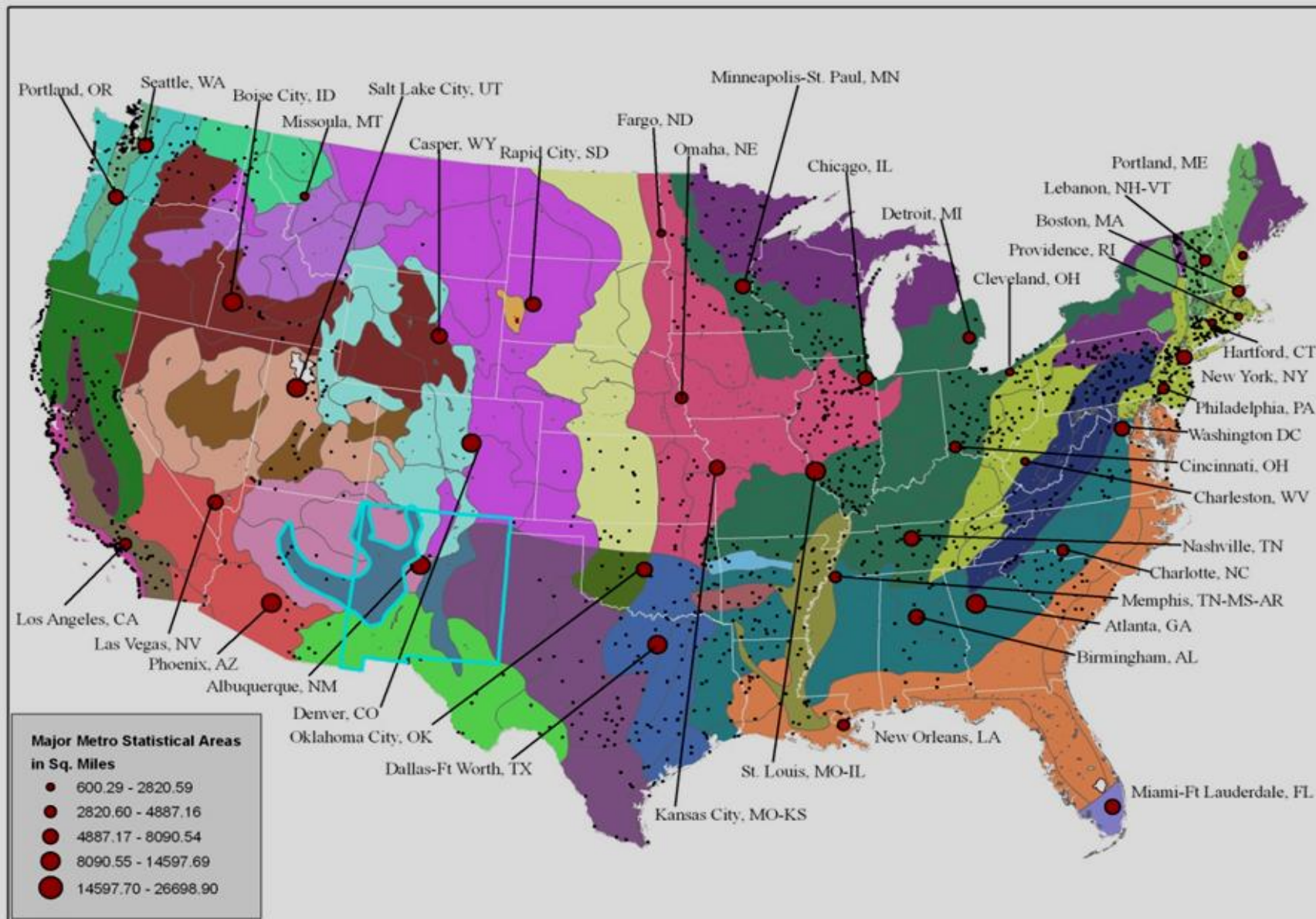
- Resurrect 1999 inventory of state parks done by hand mainly from printed sources
- Update statistics on individual parks for all states from on-line or direct contact sources
- Add size in acres
- Add lat/long park locators or, if available, shape files
- Call follow-up to each state office, or park office to validate data and check open status
- Map county total acres and individual parks

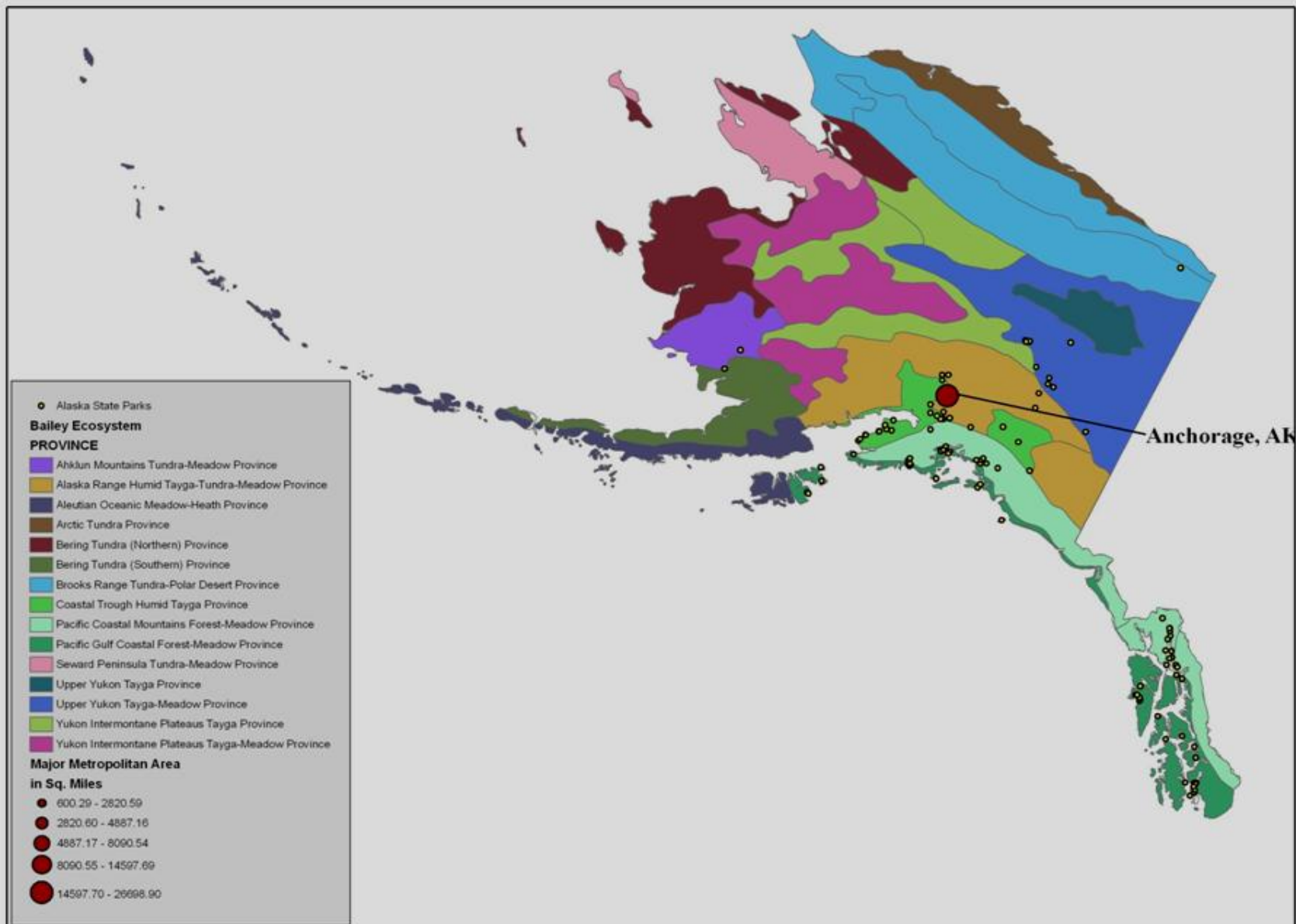


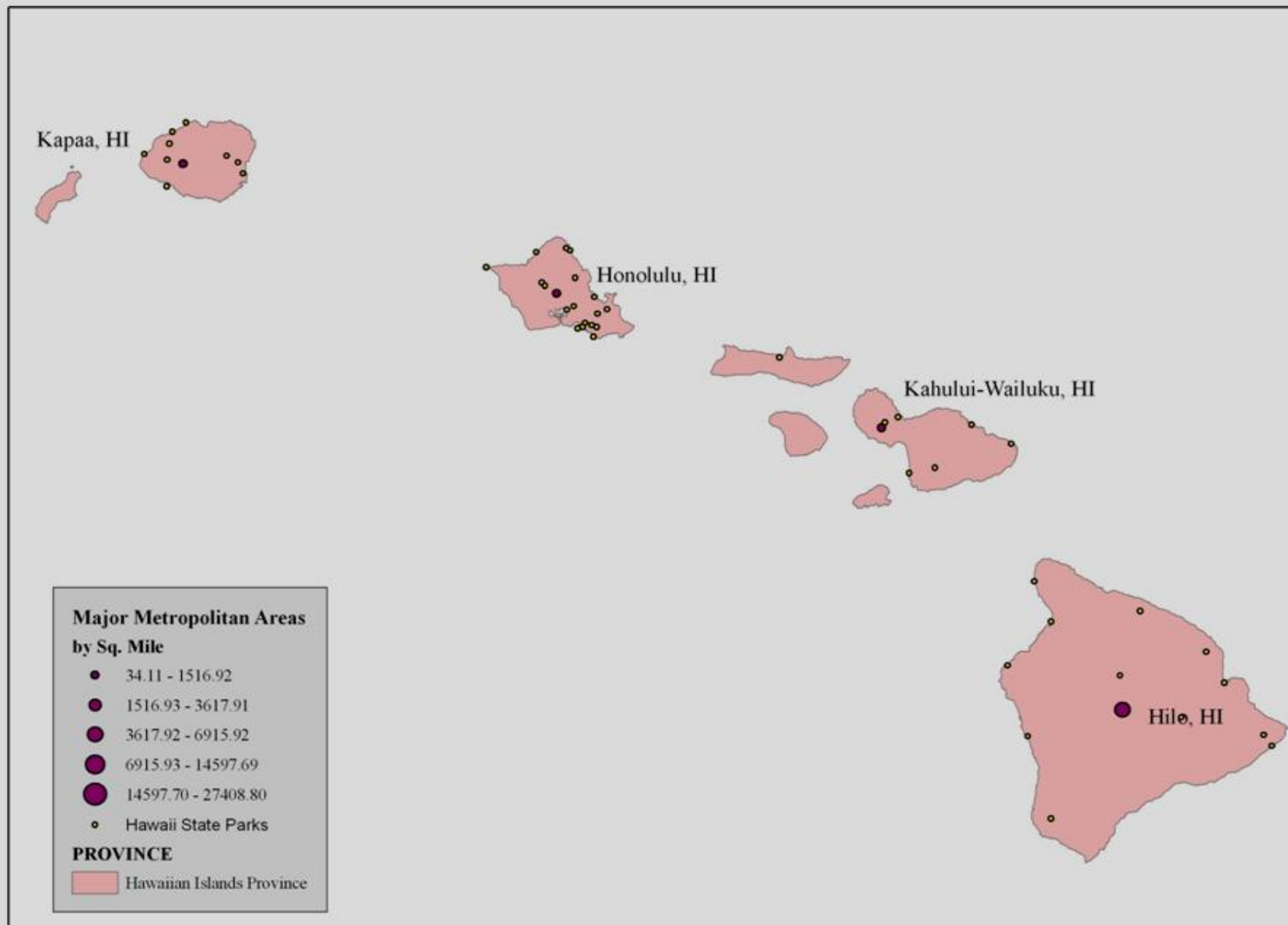
Baileys Ecosystem

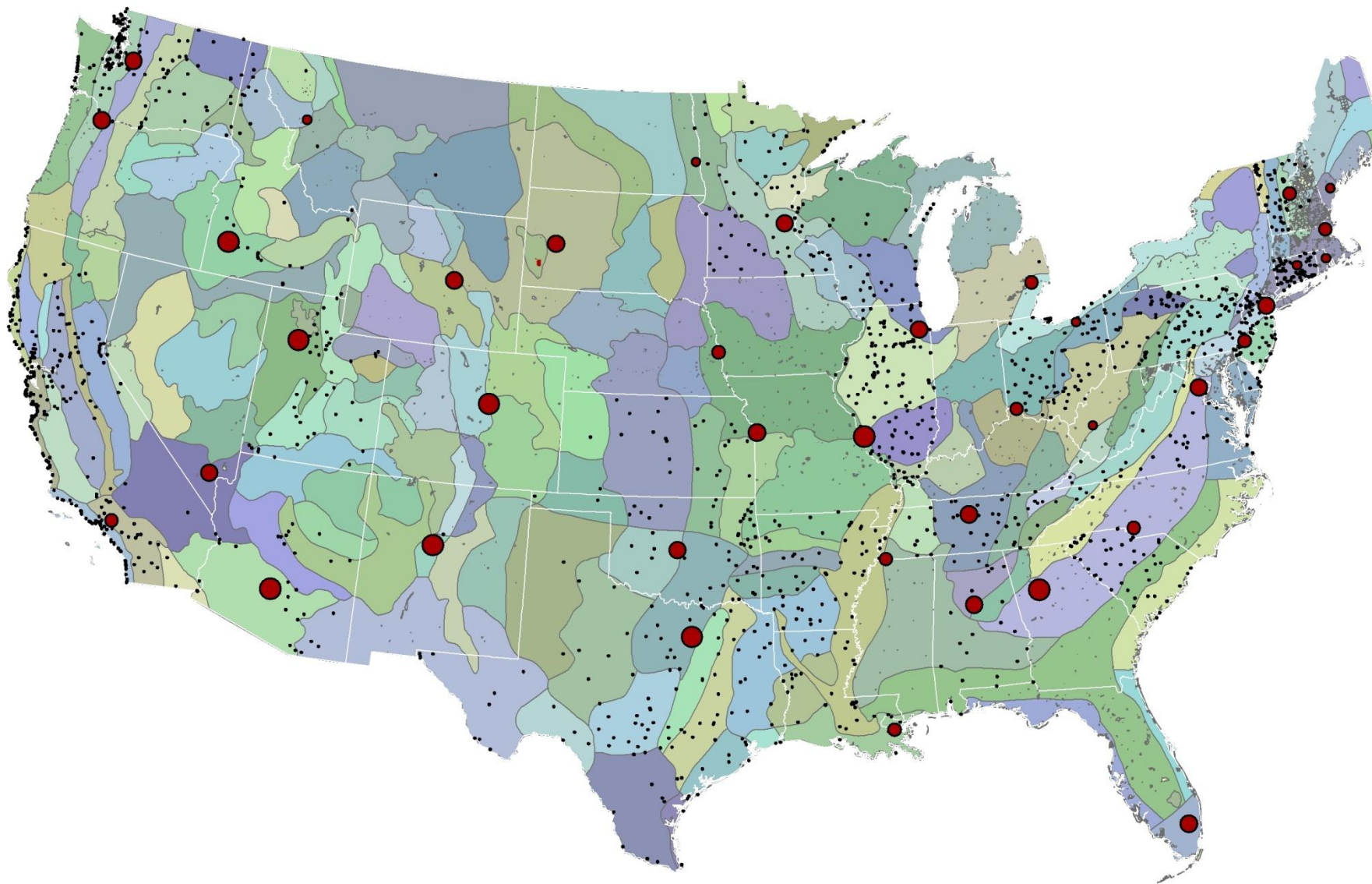
PROVINCE

	Not listed
	Adirondack-New England Mixed Forest-Coniferous Forest-Alpine Meadow Province
	American Semi-Desert and Desert Province
	Arizona-New Mexico Mountains Semi-Desert-Open Woodland-Coniferous Forest-Alpine Meadow Province
	Black Hills Coniferous Forest Province
	California Coastal Chapparral Forest and Shrub Province
	California Coastal Range Open Woodland-Shrub-Coniferous Forest-Meadow Province
	California Dry Steppe Province
	Cascade Mixed Forest-Coniferous Forest-Alpine Meadow Province
	Central Appalachian Broadleaf Forest-Coniferous Forest-Meadow Province
	Chihuahuan Semi-Desert Province
	Colorado Plateau Semi-Desert Province
	Eastern Broadleaf Forest (Continental) Province
	Eastern Broadleaf Forest (Oceanic) Province
	Everglades Province
	Great Plains Steppe Province
	Great Plains Steppe and Shrub Province
	Great Plains-Palouse Dry Steppe Province
	Intermountain Semi-Desert Province
	Intermountain Semi-Desert and Desert Province
	Laurentian Mixed Forest Province
	Lower Mississippi Riverine Forest Province
	Middle Rocky Mountain Steppe-Coniferous Forest-Alpine Meadow Province
	Nevada-Utah Mountains-Semi-Desert-Coniferous Forest-Alpine Meadow Province
	Northern Rocky Mountain Forest-Steppe-Coniferous Forest-Alpine Meadow Province
	Ouachita Mixed Forest - Meadow Province
	Outer Coastal Plain Mixed Forest Province
	Ozark Broadleaf Forest - Meadow Province
	Pacific Lowland Mixed Forest Province
	Prairie Parkland (Subtropical) Province
	Prairie Parkland (Temperate) Province
	Sierran Steppe-Mixed Forest-Coniferous Forest-Alpine Meadow Province
	Southeastern Mixed Forest Province
	Southern Rocky Mountain Steppe-Open Woodland-Coniferous Forest-Alpine Meadow Province
	Southwest Plateau and Plains Dry Steppe and Shrub Province





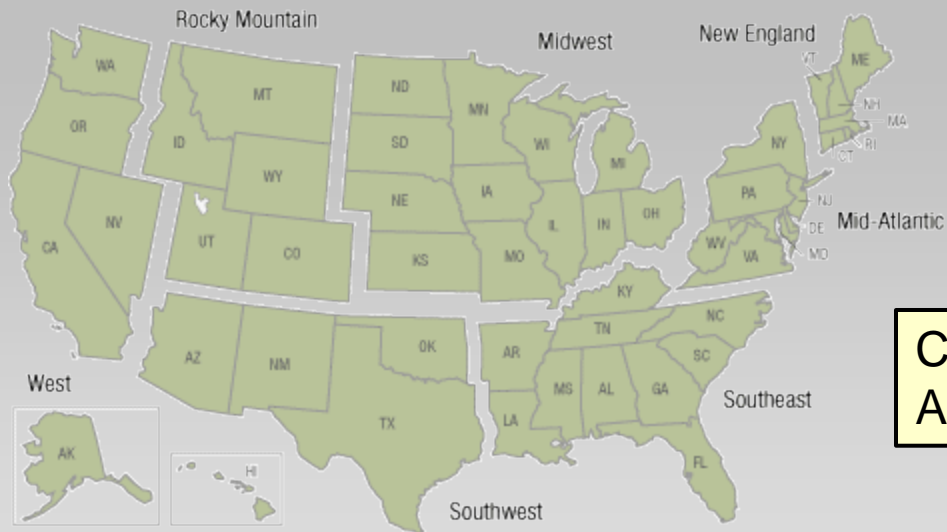
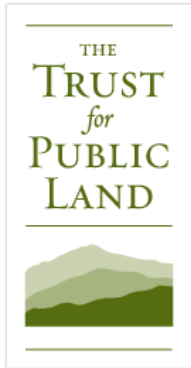




- **Protected Lands**
 - **Private**
 - **Local Government**
 - **State Government**
 - **Federal Wilderness System**
 - **Other Federal Systems**

Outline of Private Lands Portion of Protected Lands (TPL)

- **Introduction** to private land conservation in the United States: History and Current Situation
- Current status and trends in total private land area protected **nationally and regionally** (broken out by fee and easement categories)
- Map (or maps) depicting distribution and trends in acres conserved **across states**
- Map depicting **distribution and trend of dollars** spent by state
- Area of conserved lands by **type of ownership**--individual/family owned lands, NGO/non-profit organization lands, and conserved corporation lands
- Summary and trend of number and type of **LandVote conservation finance ballot measures** by state
- Detailed Version III **data for selected states** of OR, MT, MA, MO, and FL (and likely AZ CO and IL) summarizing spending at all levels of government, acres acquired, location of parcels, including GIS mapping
- National and regional profile of **state land conservation programs and spending**
- Current levels and trend in **federal programs and spending**
- Discussion of likely **future trends** at local, state and federal levels



Co-writing with TPL
Andrew duMoulin

Region	Total Acres Protected	Protected Acres per Capita	% of Region Protected
Mid-Atlantic	10,304,151.6	0.18	9.2%
Midwest	30,139,330.5	0.45	6.3%
New England	4,839,352.7	0.34	12.0%
Rocky Mountain	95,015,799.3	9.06	29.0%
Southeast	28,960,508.7	0.44	9.7%
Southwest	37,250,994.8	1.04	10.3%
West	267,143,832.8	5.21	41.5%
TOT	473,653,970.5	1.57	20.5%

Protected lands

1,000s of Acres	North		South		Rocky Mountains		Pacific Coast		United States	
Federal agency	Acres	%	Acres	%	Acres	%	Acres	%	Acres	% change, total acres
USDA Forest Service	12,240	6.4	13,320	6.9	99,419	51.6	67,734	35.1	192,713	0.1
National Park Service	1,349	1.7	5,195	6.6	11,080	14.1	61,201	77.6	78,825	0.1
U.S. Fish & Wildlife Service	1,711	1.8	4,357	4.6	9,893	10.5	78,544	83.1	94,504	4.5
Bureau of Reclamation	0	0.0	197	3.0	5,470	83.9	854	13.1	6,522	0.0
Bureau of Land Management	4	0.0	44	0.0	142,962	56.4	110,356	43.6	253,367	-3.1
Tennessee Valley Authority	0	0.0	248	100.0	0	0.0	0	0.0	248	113.8
U.S. Army Corps of Engineers	2,557	18.6	7,104	51.7	3,540	25.8	545	4.0	13,746	18.5
All federal agencies	17,862	2.8	30,466	4.8	272,364	42.6	319,234	49.9	639,926	-0.2

National Wilderness Preservation System--2009

	North			South			Rocky Mountains			Pacific Coast			United States			
Federal agency	Units	Acres	%	Units	Acres	%	Units	Acres	%	Units	Acres	%	Units	Acres	% of U. S. total	% change, acres '03-'09
Bureau of Land Management	0	0.0	0.0	0	0.0	0.0	125	4,606.1	52.8	94	4,119.9	47.2	219	8,726.0	8.0	33.1
Fish & Wildlife Service	14	64.4	0.3	18	470.2	2.3	13	1,464.8	7.1	26	18,703.0	90.3	71	20,702.3	18.9	0.0
Forest Service	55	1,428.1	3.9	85	755.2	2.1	154	18,207.8	50.4	145	15,769.0	43.6	439	36,160.1	33.0	2.5
National Park Service	4	178.6	0.4	7	1,486.8	3.4	25	1,342.5	3.1	24	40,882.5	93.1	60	43,890.5	40.1	1.1
U. S. Total	73	1,671.1	1.5	110	2,712.3	2.5	317	25,621.2	23.4	289	79,474.4	72.6	789	109,478.9	100.0	3.3

2010 Assessment Products

SRS and UGA, Athens GA

- 1. Recreation activity trends and futures**
- 2. Recreation and protected land resources**
- 3. Natural amenities and migration**
- 4. Footprints on the land**

1. Recreation Activity Trends and Futures

- **Population-wide participation at national and regional scales—historic and current trends:**
 - **Survey on Fishing, Hunting and Wildlife Associated Recreation (USFWS)**
 - **Outdoor Foundation—Recreation Participation Survey**
 - **National Survey on Recreation and the Environment and National Kids Survey (Forest Service, UGA, UT)**
- **Participation Differences by Age, Race, Gender, Origin,**
- **Participation and Trend Differences by Region**
- **Public Land Visitation Trends**
 - **Federal Lands**
 - **State Parks**
- **Outdoor Recreation-Based Tourism and its Trends**
- **Projections of Demand to 2060 by IPCC Scenario**

2. Recreation and protected land resources: National, regional and county patterns

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 - State Government
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 - Other Federal Systems

3. Natural Amenities and Migration

- **Review of published literature to now**
- **Measures of natural amenities**
- **Amenities index and mapping**
- **Second and vacation homes (NSRE and Census of Housing)**
- **Migration trends**
- **Motivations to Move**
- **Modeling and forecasting amenity migration**

END